

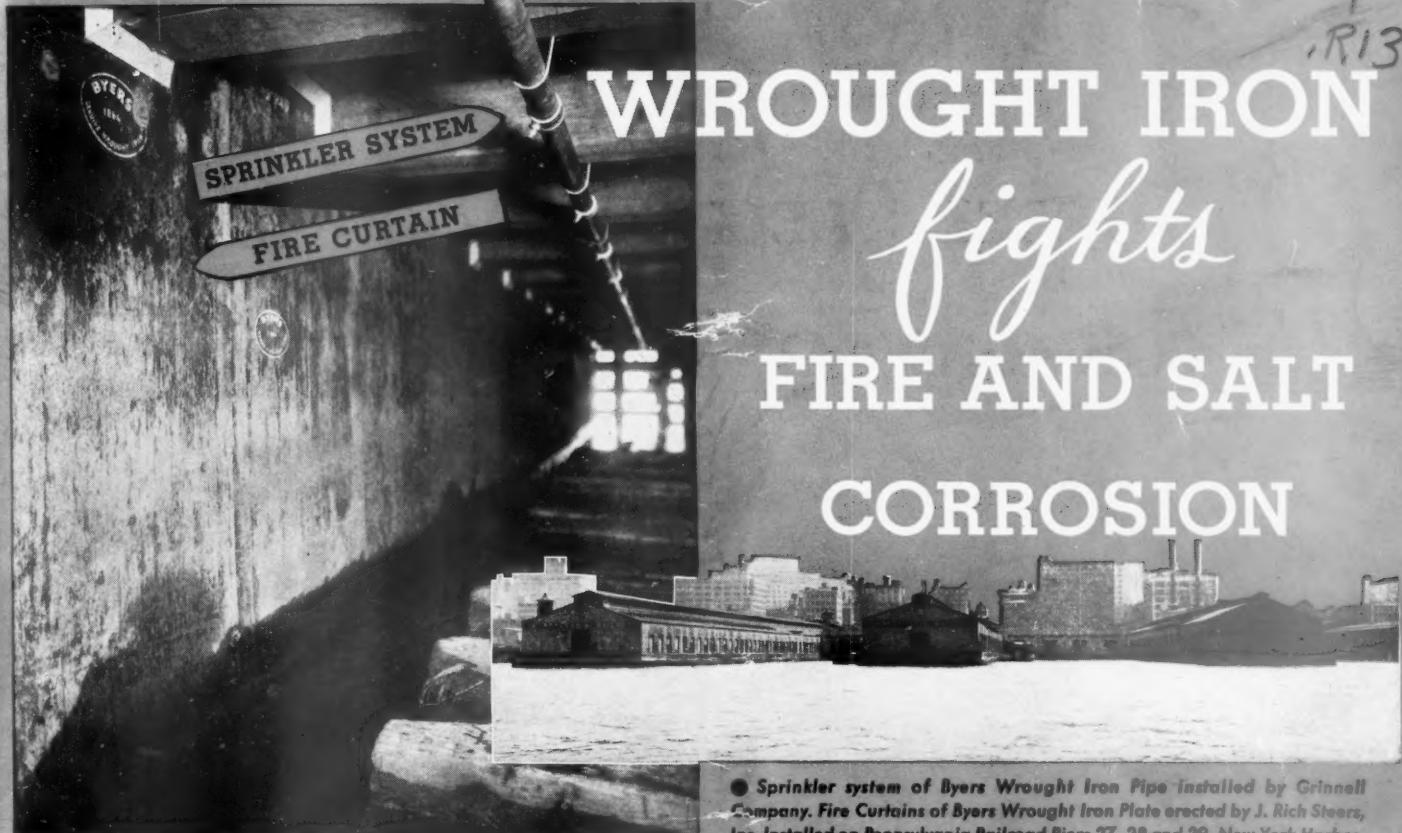
OCTOBER 7, 1933



Railway Age

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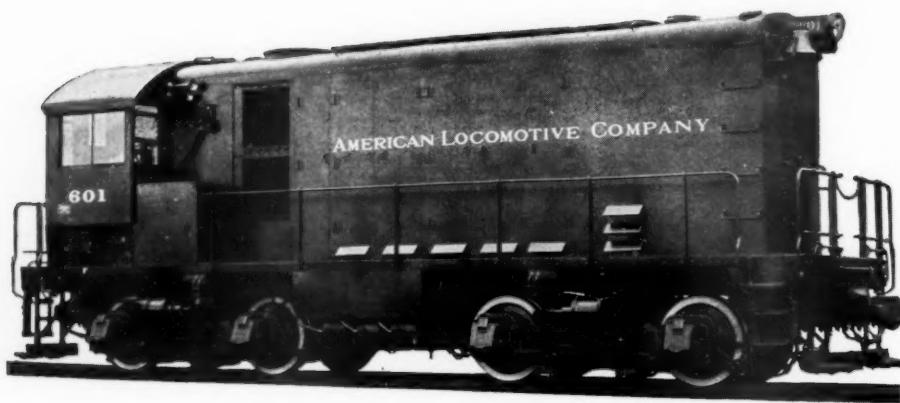


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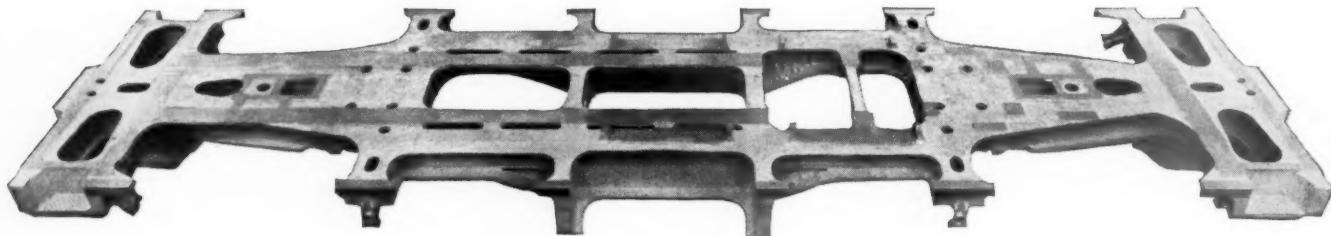
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The Railways and Government Loans

The government wants the railways to borrow a large amount of money from it, and spend it for equipment and material and increased maintenance work, to help revive business. The fact that the railways have been for some months and still are, showing reluctance to borrow money which the government wants to loan to them raises some interesting questions regarding the relations between government and business.

No well-informed person feels any surprise because the railways, or any other industry, for that matter, hesitate to accept government loans. When we refer to the government, we include Congress as well as the administration. The experience of many business men, and especially of railway managers, as a result of efforts made by them within the last four years to help the government maintain or revive business has not been a happy one. Business men as well as government officers have duties and responsibilities to the public, and the public happens to include both their own employees and their security-owners.

Business men, large and small, including railway managers, are the key men in the nation's economic system, and their psychology and efforts are a more important factor in determining the trend of business than those of any other class, or perhaps of all other classes. Unfortunately, the government has adopted some policies in its efforts to maintain and revive business which have tended more to cause many business men to feel resentment and fear than to inspire them with confidence and enthusiasm. The "profit motive"—the desire to reduce losses or increase profits—always has been and always will be the indispensable driving power of business under the capitalistic system, and as the capitalistic system has not yet been abolished in the United States, any policies adopted by the government to revive business which do not rely mainly upon the profit motive for their principal driving power will only temporarily produce desirable results, and, in the long run, will not stimulate, but will retard, the improvement of business.

How the Railways Have Helped and Been Rewarded

Now, let us briefly review what the railroads have done during the last four years, largely at the suggestion of the government, to help maintain and revive

business, and how the government has treated them in return. Almost four years ago, soon after the collapse of the stock market, the railroads, at the request of the Hoover administration, adopted the policies of increasing their capital expenditures and maintaining wages. They made capital expenditures in 1930 exceeding by probably \$400,000,000 those that they would have made if they had acted strictly in accordance with the judgment of their own managements, and they maintained wages throughout 1930 and 1931, although they had sought and secured substantial reductions of wages during the depression of 1921-1922. It was largely owing to this maintenance of their capital expenditures and wages that many railways got into such a bad financial condition that under the Hoover administration they began to accept loans from the government through the Reconstruction Finance Corporation which now amount to approximately \$350,000,000. These loans were made to them more for the protection of life insurance companies, savings banks and other fiduciary institutions having large investments in railroad bonds than for the protection of the railways themselves, but nevertheless the government not only required the railways to put up ample collateral, but usually charged them interest at six per cent, although the government itself was paying four per cent or less for the money it loaned them.

Subsequently, there was proposed in Congress legislation to fix a maximum salary of \$17,500 a year for any officer of any company borrowing from the government, and this legislation as finally passed, empowered the Reconstruction Finance Corporation to fix the salaries of officers of borrowing companies. Not only have many reductions been made by the Reconstruction Finance Corporation in salaries that already had been reduced, but the Federal Co-ordinator of Transportation has effectively used his influence to cause other reductions to be made by railways that were not indebted to the government. While the government was reducing the salaries of railway officers, it intervened effectively to stop a movement by the railways to make a reduction in wages greater than the reduction of 10 per cent already in effect. It is only fair to add that the Reconstruction Finance Corporation and the Co-ordinator of Transportation were more reasonable

in dealing with salaries than Congress probably would have been, and that the refusal of the Interstate Commerce Commission to order a general reduction of freight rates on basic commodities largely offset the effects produced by the government's intervention to maintain wages.

Reasonable Terms for Government Loans

Having thus dealt with the railways and their officers for four years, the government now asks them to borrow from it an additional large amount of money and spend it to help improve business. If the government finds them somewhat unresponsive it is because some of the unfair and browbeating methods of the government have forcibly recalled the ancient advice about mistrusting Greeks who come bearing gifts. The managements of the railways are entirely justified, in view of all that has occurred, in asking the government what it proposes to do to make it worth while for them to borrow more money from it. Railway directors and managers cannot justifiably do any more things to help business unless they will also be in the interest of railroad security owners.

The government is seeking a reduction in the price of rail as an inducement for the railroads to buy a large tonnage with government loans, which is justifiable only if the prices they would otherwise have to pay would be too high. The government can help the railways, and make it to their interest to increase their expenditures, by liberalizing the conditions under which it has heretofore made and proposed loans to them. It can make them loans without demanding collateral and entirely on their credit as indicated by their past and prospective earning power. It can reduce to 3 per cent the interest on the loans already made to them and on loans made to them in future, and give them a long period of years in which to make repayment.

The situation is different from what it would be if the railroads were seeking loans entirely for their own benefit. They are being urged to borrow and spend to help general business, but they must at the same time consider what it is in their own interest to do, and, therefore, the terms agreed upon should be such that any increased expenditures made will not only be helpful to general business, but beneficial to the railroads themselves. There is no more reason why the interests of the railroads should be disregarded to help general business than why the interests of any other industry or all other industries should be disregarded to help general business; and, obviously, if the interests of all industries should be disregarded in efforts to help general business, the result would be to ruin all business.

The Needs of the Railways

Suppose, then, that the government should offer to reduce the rate of interest on what the railways already have borrowed from it, and to loan them an additional \$400,000,000 at 3 per cent to be payable at any time within, say, fifteen years. Should the railroads then

accept additional government money and increase their expenditures? One argument made against doing so is that the railroads got themselves into their present trouble by making such large capital expenditures at the request of the government in 1930. But conditions are now entirely different from what they were then. The nation was then entering a depression after seven years of prosperity during which the railroads had been put in the best condition ever known, whereas it is now emerging from a depression during three years of which they have made the most drastic retrenchments in maintenance and capital expenditures in history. As to the need for increased expenditures for maintenance, there can be no question about it. The longer such increased expenditures are postponed the larger they will have to be, and, therefore, the only question worth considering is whether it is expedient to make them now partly with borrowed money or to make them later on a larger scale out of earnings.

As to capital expenditures, it may be said that the railways have enough equipment and other facilities to handle traffic; but car loadings are now 40 per cent less than they averaged in 1925-1929, and the question that ought to be considered is, how rapidly and how much traffic is likely to increase, and what amount and kind of equipment and facilities will be required to handle traffic satisfactorily and with increasing economy in future. The railways have, of course, sufficient capacity to handle a much larger volume of traffic than is now available, but the decline that has occurred in their surplus equipment since last spring is not without significance. Between the first two weeks in March and the first two weeks in August average weekly car loadings increased from 458,000 to 618,000, and the freight car surplus declined from 691,000 to 403,000. At that same rate an increase in car loadings to 860,000 weekly would wipe out the car surplus, although even then weekly loadings would be 27 per cent less than they averaged in October, 1925-1929.

Estimates of the facilities that the railways are going to need which are based upon present or immediately prospective traffic demands assume that the depression is going to last some years longer, or is going to be permanent, a view which has no experience to support it. Furthermore, the railroads are confronted with the necessity, if they are ever going to prosper again, of making large investments to enable them to effect economies and to meet outside competition. The longer they delay making the necessary investments the longer they will postpone the possibility of accomplishing these purposes.

An Important Question of Policy

Railway car loadings increased from 48 per cent of the 1925-1929 average in March to 61½ per cent of this five-year average in July, and then declined to 57½ per cent of the five-year average in September. In view of the fact that general business, including railroad business, improved during the last one-third of 1932, and again from March to July, it would appear

that underlying economic conditions have been improving for more than a year, and that when general business becomes better adjusted to the artificial government measures being used to stimulate it, and the question of inflation is settled, if it is settled right, the improvement in general business will be resumed. If the improvement is resumed, it would seem that it would be to the interest of the railways to increase their capital and maintenance expenditures more than they otherwise could by borrowing money from the government, provided the government will make them reasonable terms.

By making such increased expenditures the railways will help stimulate the improvement in general business, including their own business, and they will invite severe criticism from the highest government sources if they do not do all they reasonably can to help the administration carry out its recovery program. They will need the help of the administration in securing fair transportation legislation from the next Congress, and in the background looms the threat of government ownership, which might be made more serious by alleged or real failure on their part to co-operate with the administration, for which, as a matter of fact, they already are being criticized in high places. On the whole, therefore, it would appear that whether the railways should accept additional loans from the government with which to increase their capital and maintenance expenditures is an extremely important question of policy which should be given the most careful and broadest consideration.

Railroad Taxes and Highway Maintenance

The public considers it fitting and proper for the railways to maintain, from their own funds, the rights-of-way over which they operate. The public is quite right in this regard. But when the railways are called upon, as they are, to contribute in annual taxes for highway purposes a sum sufficient to pay for an entire year's maintenance of more than 300,000 miles of highways, the equity of our taxing methods is open to serious question.

Detailed figures of railroad taxes paid for highway purposes have recently been made available for thirty-nine states. In these states, highway taxes paid by the railroads in a year amounted to \$41,046,732. Basing calculations upon the actual maintenance expenditures per mile of highway in these states, this sum was sufficient to pay annual maintenance costs of 293,595 miles of highway. When the remaining nine states are considered, in which it is estimated that the railroads pay annually some \$4,000,000 in highway taxes, it appears that in the United States as a whole the railroads are paying in direct taxes for highway purposes a sum sufficient to pay annual maintenance costs of substantially more than 300,000 miles of highway. It should

be realized, in this connection, that a substantial amount of special assessment taxes has been excluded from the foregoing tax figures, as have also been the vehicle license and gasoline fees which the railways pay as highway users.

In New York, highway maintenance expenditures in 1930 averaged \$386.95 per mile. Highway taxes paid in that state by the railroads amounted to \$5,379,277, an amount sufficient to pay all maintenance costs on 13,902 miles of highway. Similarly, highway taxes paid by the railroads were sufficient to have paid the entire annual cost of maintenance of 29,328 miles of highway in North Dakota; of 27,774 miles of highway in Kansas; of 16,247 miles of highway in Texas; of 15,141 miles of highway in Montana; of 13,875 miles in Oklahoma; of 11,954 miles in Illinois; of 10,542 miles in Wisconsin; of 9,783 miles in Indiana, and of 9,054 miles in Ohio.

The *Railway Age* has never heard of an instance where a truck, a bus or a barge has been taxed to help maintain a railroad right-of-way.

Is It Economically Practicable?

A striking new design of high-pressure condensing steam locomotive has recently been completed by a committee of the International Railway Fuel Association, and was described in the *Railway Age* of September 30. What attitude should the railways take towards this design which represents such a revolutionary departure from conventional practice? Obviously, its possibilities should be studied with an open mind, since changed transportation service requirements on American railways have already necessitated substantial changes in certain types of motive-power and car equipment, and still further readjustments will doubtless be required if the challenge of modern conditions is to be met successfully. There is only one real question to be asked about the proposed new locomotive, namely: Is it economically practicable?

The new motive-power unit, designed in two sizes to develop 2,000 hp. or 3,000 hp., is expected to have a thermal efficiency of 15 per cent, or about twice that of the ordinary steam locomotive. Unusual features of construction include multiple high-pressure steam generators, furnishing steam to two high-speed multi-cylinder uniflow steam engines, air-cooled condensers and mechanical gear-type power transmission to the wheels, all of which are drivers. While these unique features are new in railroad service, they are all in more or less successful commercial production in other fields, and it may be said that the best available engineering skill and experience have been called on in adapting them to this locomotive design. The committee anticipates that a locomotive of this type will be smokeless, practically noiseless, flexible and efficient, and, with double-end operation, adaptable not

only for general use as a motive-power unit but particularly for suburban service in which it may provide most of the advantages without the high cost of electrification.

This is the ambitious goal sought by the designers of the new high-pressure condensing-steam locomotive. If the various component units of the locomotive fulfill the specifications for which they are designed, a locomotive of this type will doubtless function as intended. Owing to the multiplicity of parts, however, the first cost of the locomotive, particularly in the development stages, is bound to be high, a factor, however, not of controlling importance should the locomotive really avoid the necessity of electrification.

In the last analysis, the success or failure of the design hinges upon performance and maintenance. Both of these points will be subject to question in the minds of many railroad men, particularly with respect to the boilers, each of which, in a space of approximately $4\frac{1}{2}$ ft. in diameter by less than 6 ft. in height, must develop, at capacity, an equivalent evaporation of more than 8,000 lb. of steam per hour with a consumption of slightly more than 60 gal. of oil per hour. The multi-cylinder high-speed engines and mechanical transmission, including gear drive, also suggest more or less heavy expenditures for maintenance, and judging by past locomotive experience, the possibility of mechanical failures and train delays. The proof of the economic practicability of the proposed high-pressure condensing-steam locomotive awaits the building of the first unit and its subjection to rigorous tests under road service conditions.

Removal of Discrimination First Step in Co-ordination

A. J. Brosseau, president of Mack Trucks, Inc., in an article entitled "Is Motor Competition Unfair to Railroads?" in the September "Rotarian" answers the question in the negative, but he fails to compare the regulation, the degree of self-support and the labor standards of the two forms of transportation which are the very essence of their competition with each other. Instead he dwells at length upon the convenience and cheapness of truck transportation, which for certain transportation tasks everyone concedes. He then lifts a paragraph or two from the report of the National Transportation ("Coolidge") Committee which in the absence of their context are good talking points for his argument, makes the customary misleading claims about motor taxation and winds up with a plea for license reciprocity and the MacDonald formula for increasing the permissible size and weight of motor vehicles.

Actually, as suggested above, there are four factors affecting the competition of rail and motor transport

and no discussion of the subject which omits any one of them can be considered adequate. One of these factors, the comparative physical characteristics of the two forms of transportation, is intrinsic. The other three are exterior, are wholly artificial and can be changed whenever the public so wills. These three factors are: (1) the extent of regulation, (2) the degree of self-support and (3) labor standards. No reasonable person could object if the competition of rail and motor transport were carried on solely upon a basis of their comparative intrinsic merits—the economy of the railroad for heavy traffic on the one hand and the superior flexibility of the truck on the other. The objection, and its validity cannot be questioned, arises when one form of transport is encouraged to invade the field of another, not on the strength of its economic superiority, but because of purely arbitrary discrimination in its favor as regards regulation, the degree of self-support required and labor standards.

No one can honestly deny that this discrimination exists as between the railroads and their highway competitors. It is threefold, viz.:

1. The railways are regulated as to rates and otherwise to a much greater degree than are truck operators.
2. Railway service costs the taxpayers nothing, while it yields hundreds of millions of *net* revenue to the public treasury. Motor transport, by contrast, fails by about a billion dollars annually to pay even the expenses to which the governments are put to in its behalf, to say nothing of any *net* contribution to general governmental expenses.
3. Railway labor standards are much higher than those of their highway competitors. The proposed code of the American Trucking Associations, Inc., sets the minimum pay of a truck driver at \$1.81 cents per 100 miles, whereas the lowest paid class of freight transportation employees on the railroads receive \$4.68 per 100 miles for work which under normal conditions is much less exacting than that of a truck driver.

Discrimination in the three points outlined above ought to be ended, not simply as a matter of justice to the railroads and their employees, but primarily to conserve and increase our nation wealth. If the protection of the public interest is the goal of public policy, as it should be, then a means must be found whereby each transportation task will fall to the agency which can perform it most economically. As a practical matter, the choice of the agency usually is based upon price. If regulation, self-support and labor standards were equal for all agencies, then the only factor determining their comparative prices would be their mechanical and physical qualities. That is to say, prices would reflect comparative actual costs, which they do not do at the present time. If prices were made to reflect such costs we could then begin to have true transport co-ordination—each method being utilized only for the jobs to which it is economically best suited. We cannot achieve true co-ordination in any other way.



Light-Weight Rail Car Designed for Operating Speeds of About 90 M.P.H.

Pullman Light-Weight Rail Car Designed for High Speeds

Special features include tubular steel frame, streamlined body of aluminum and two driving motors mounted directly on the front truck

WITH a view to providing faster and more economical railway passenger service, the Pullman Car & Manufacturing Corporation, Chicago, has developed a new type of light-weight high-speed rail car. Known as the "Railplane," this unit is 60 ft. long, seats 50 passengers, weighs approximately 25,000 lb. and is designed for maximum operating speeds of about 90 m.p.h. It is featured by welded tubular steel construction for both the body and the truck frames; an outside covering of aluminum alloy sheets, conforming to the streamlined contour, and two driving motors mounted directly on the front trucks. Other details of unusual interest are the use of resilient wheels and drum-type brakes.

Adequate Strength and Light Weight Sought

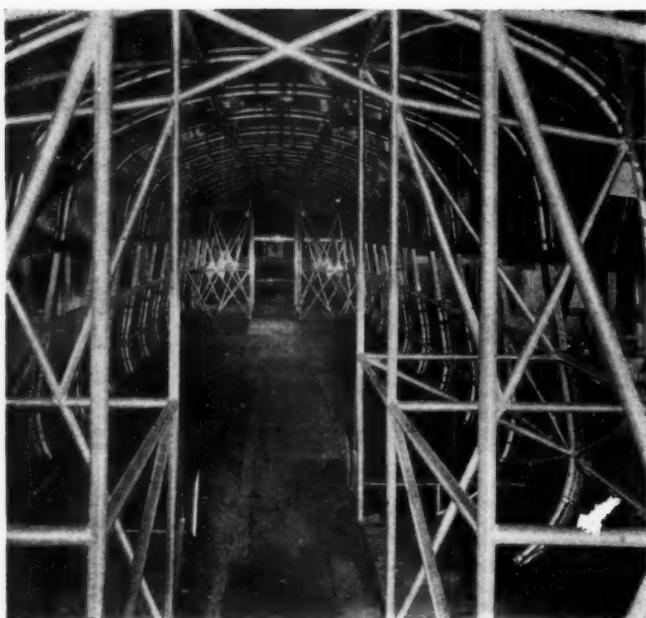
The Pullman Car & Manufacturing Corporation, which has for some years been making an extensive study of light-weight passenger-car equipment, engaged the services of the Stout Engineering Laboratories, Inc., Dearborn, Mich., to assist in the design and to construct this light-weight high-speed rail car which has just been completed and is ready for demonstration tests. The extensive experience of the Stout organization in automotive and aeronautic design was thus made available in developing a single-unit car adapted to railroad requirements. The fundamental objectives sought in the design were adequate strength with the least possible weight to decrease rolling resistance, full streamlining to reduce air resistance at high speeds and, consequently, low power requirements and economy in operation. In other words, the object was to produce a vehicle for rail service which would have low operating cost per passenger-mile.

In accordance with the preliminary design, the frame-

work of this car is made of chrome-molybdenum steel tubing on account of its high tensile strength, resistance to corrosion and the structural strength of the tubular form. This tubular material was readily welded, thereby forming an integral structure which has proved exceptionally satisfactory in air-craft work. When the frame was completed, tests were made by supporting it at four corners on jacks and then raising one of the corners



Front End View Showing Streamlined Body Contour and Other Details

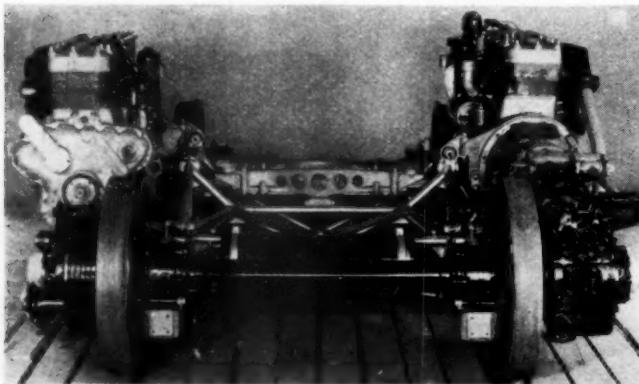


Car Body Frame Made of Welded Chrome-Molybdenum Tubular Steel

slightly. It is said that an elevation of one corner as small an amount as $\frac{1}{8}$ in. was sufficient to release the frame completely from the two low jacks on opposite corners, thus showing unusual rigidity and almost complete absence of distortion. This type of tubular steel frame construction is also designed to afford effective resistance in the case of collision in that the ends will absorb the shock with local deformation protecting the balance of the car structure from serious damage.

The cross section and shape of the ends of the body of the car were carefully determined, based on aerodynamic experience and wind-tunnel tests, in order to obtain the least possible wind resistance at high speeds, it having been determined that at 90 m.p.h. on straight level track, the wind resistance for the conventional passenger-car design is 90 per cent of the total resistance and that this resistance can be reduced more than 50 per cent by proper streamlining. In designing the streamlined body construction of this car, due recognition was given to the fact that, operating on rails on the ground, it does not move freely in a medium like water or air, with head end resistance alone to overcome. Wind may be encountered in any direction and a side wind coming from a forward angle has a serious effect in increasing resistance whereas a side wind coming from an angle at the rear materially reduces wind resistance.

The outside covering of the car is made of Duralumin,



One Motor Drives the Front and the Other the Rear Wheels of the Forward Truck

a heat-treated aluminum alloy having the strength of ordinary structural steel with but one-third of the weight. Care was exercised in the design to avoid all breaks in the smooth outer surface of the car. The construction of the flush windows and doors are shown in the illustrations. Steps are of the folding type and, when raised, conform to the contour of the car body. The bottom of the car is entirely smooth, except for the protruding wheels and engines.

Trucks and Wheels

The trucks are constructed of welded chrome-molybdenum steel tubing, combined with high-tensile steel castings and embodying the liberal use of rubber for cushioning and silencing. The wheels are a special resilient design, having steel centers and treads prevented from making direct mechanical contact by rubber inserts. These wheels, as well as the roller bearings used on all the journals, were furnished by the Timken Roller Bearing Company, Canton, Ohio.

The Railplane is driven by two Waukesha six-cylinder automotive-type engines, which develop 160 hp. each at a speed of 2,200 r.p.m. These engines are mounted on either side of the front truck, utilizing the space between the outside of the wheels and the outside of the car body, thereby placing them where they will offer no air resistance and where they are readily accessible for servicing or repairs without disturbing the interior of the car. This construction also avoids taking up any space inside of the car for the installation of the power plant. The engine on one side of the truck drives the forward axle, and the engine on the other side drives the rear axle, each through a special Bunker clutch, universal joint and gear transmission of the automotive type, made by the Timken-Detroit Axle Company, Detroit, Mich. The engine control is simple, the gear shifting being automatic and the two engines controlled by one throttle. All wheels on both trucks are provided with special automatic automotive-type drum brakes, made by the Westinghouse Air Brake Company, Wilmerding, Pa.

The car is heated by air which has been passed over the main engine cooling radiators, and in summer it is planned to provide artificially cooled air. Power for this air-cooling system, as well as for lighting the car, is provided by a Kohler 7-kw. electric-generating set mounted in a compartment in the body of the car. The windows are sealed tight, with Safety plate glass, set in sash as nearly flush as possible with the outside of the car. Rubberized hair is used for sound-proofing and heat-and-cold insulation between the outer and inner shell of the car. This construction, combined with the use of rubber in the engine mounting on the truck, will tend to eliminate noise, dirt and vibration.

ON AUGUST 2, A CONTRACT for the electrification of the main Warsaw Railway Junction in Poland was signed at the London (Eng.) offices of the English Electric Company, Ltd. The contract, involving a prospective expenditure of about two million pounds, includes the supply of the following items: Six substations, complete with switchgear, transformers and rectifiers, there being fourteen rectifiers with a total capacity of 29,500 kw; supervisory control equipment for five of the six substations; six locomotives of the B + B type, each weighing 72 tons and equipped with four 550 hp. motors; eighty motor car equipments, there being four 200-hp. motors for each car; and 250 equipments for trailer cars. The overhead contact line equipment will comprise 124 mi. of single track equipment, about 10 mi. of siding equipment, together with six track-sectioning cabins, with high-speed circuit breakers and other auxiliary apparatus.

Use Dwarf Signals as Automatics

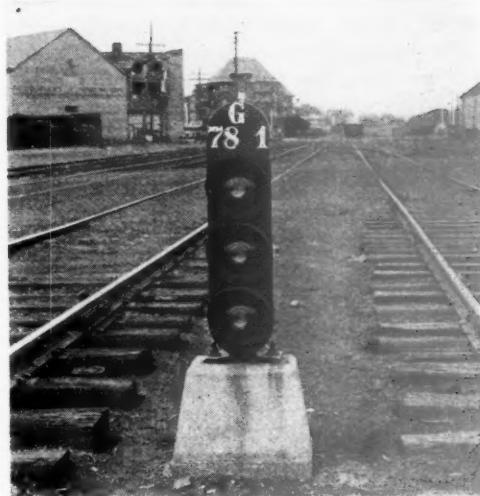
N. Y. O. & W. revises signaling through Middletown, N. Y.— Abandons two interlockings

THE use of dwarf signals as automatic block signals solved a serious problem in the reconstruction of the signaling through the yard at Middletown, N. Y., on the New York, Ontario & Western. When automatic signals were installed through this territory years ago, no signaling was provided through the yard and station layout because of the expense which would have been necessary to "throw" the yard tracks and install signal bridges.

The Erie runs trains over the N. Y. O. & W. tracks between Middletown and Crawford Junction, 3.49 miles. At Railroad avenue in Middletown, a 28-lever mechanical interlocking handled the Erie junction switch and a crossover; likewise at Crawford Junction there was a 12-lever mechanical plant. Although the Erie formerly handled a heavy traffic over this route, business has been so reduced that only one freight train is now operated each way daily, as a result of which the maintenance and operation of the two interlockings were not justified.

Therefore, a plan was developed to eliminate the interlockings, install hand-throw switches, and at the same time install automatic signals to afford adequate protection for the train movements. This meant that signaling would be required through the station and yard territory in Middletown, and after considerable study, it was decided that dwarf signals would not only serve the purpose satisfactorily, but also would obviate the requirement for overhead signal bridges. The use of dwarfs was practicable on account of the restricted speed of operation through the yard territory.

At the Railroad avenue interlocking, the Erie junction switch was equipped with a Union T-10 hand-throw switch-and-lock movement, pipe connected to a Hayes derail on the turnout. The crossover is operated by standard switch stands. In the same manner, the junction switch at Crawford Junction is handled by a T-10 movement and the crossover by switch stands. Located at each junction switch and crossover are two light-type switch indicators, one for southbound and the other for northbound trains. A telephone, connected with the dispatchers' circuit, is located in a box at the switch. In order to protect the movement of Erie trains into and out of the junction at Railroad avenue, several existing automatic signals were moved and three new color-light high signals and four new color-light dwarf signals were



Dwarf Signals Are Used Through the Yards

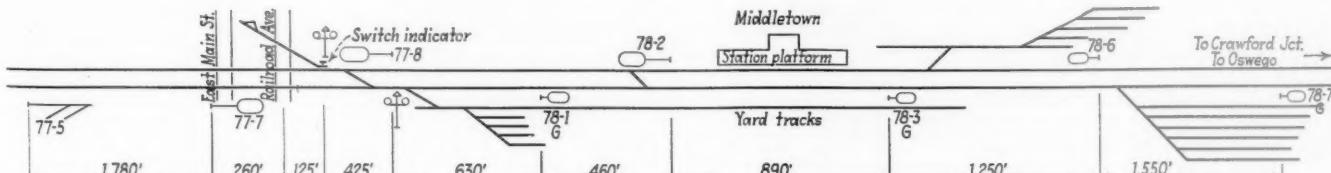
installed, together with track circuits, so that the automatic signaling is now continuous throughout the entire territory.

The two old semaphore home signals for the interlocking at Railroad avenue were replaced by new color-light automatic signals on standard masts, these signals affording protection for movements at the junction and, being so located, prevent unnecessary delays to N. Y. O. & W. trains.

In spacing these signals, two factors had to be considered. It is necessary to protect passenger trains when making the station stop, and, as the grade ascends northward through this territory, it is desirable to keep following freight trains on the move so far as possible. Therefore, the dwarf signals were located as shown on the sketch. Also, grade-signal markers were provided on the three northbound signals, permitting tonnage trains to pass these signals at slow speed without stopping, but prepared to stop short of an open switch or train ahead.

At the north end of the yard, the old semaphore, which was previously the last southbound signal, had been located on a bracket pole away from the track which it governed. In order to standardize the arrangement, this signal was removed and a new dwarf, No. 78.6, was installed alongside the track which it governs. At Crawford Junction, new color-light automatic signals were installed to replace the mechanical semaphore home signals, and three semaphore automatic signals were re-located to provide adequate braking distances for modern train speeds. These semaphore signals were, of course, a part of the previous automatic block signaling.

When an Erie train is ready to come on the N. Y. O.



October 7, 1933

& W. tracks at Railroad avenue, the conductor uses the phone at the switch to call the dispatcher for permission to make the move. He also operates the push-button light-type switch indicator before throwing the switch. Normally this indicator is not lighted, and when the button is pushed, both northbound and southbound indicators light when no trains are approaching. When the train is on the main line, the switches are placed normal and the train proceeds under full automatic block protection to Crawford Junction, where the hand-throw switch is used to divert the train to the Erie track, after which the conductor calls the dispatcher to report his train clear of the N. Y. O. & W. The operation of the Erie train in the reverse direction is handled in a similar manner. The delay occasioned in handling these two local freight trains daily by this method is of no great consequence, in consideration of the fact that two mechanical interlockings have been eliminated by the change.

Cost of Work and Resultant Savings

Incidentally, the new arrangement, including the automatic signals, has been of considerable benefit in the movement of the N. Y. O. & W. trains by preventing stops and keeping the heavy coal trains moving through Middletown. The total cost of the work was \$12,291 and the net annual saving amounts to \$6,080. This installation was planned and installed by signal forces of the N. Y. O. & W., the signaling equipment being furnished by the Union Switch & Signal Company.

Freight Car Loading

WASHINGTON, D. C.

REVENUE freight car loading in the week ended September 23 totaled 652,669 cars, an increase of 653 cars as compared with the week before and of 57,065 cars as compared with the corresponding week of last year. As compared with 1931 this was a decrease of 85,367 cars. Forest products, ore, coal and coke showed reductions as compared with the figures for the preceding week, while l.c.l. merchandise, grain and grain products, and livestock showed decreases as compared with last year. The summary, as compiled by the Car

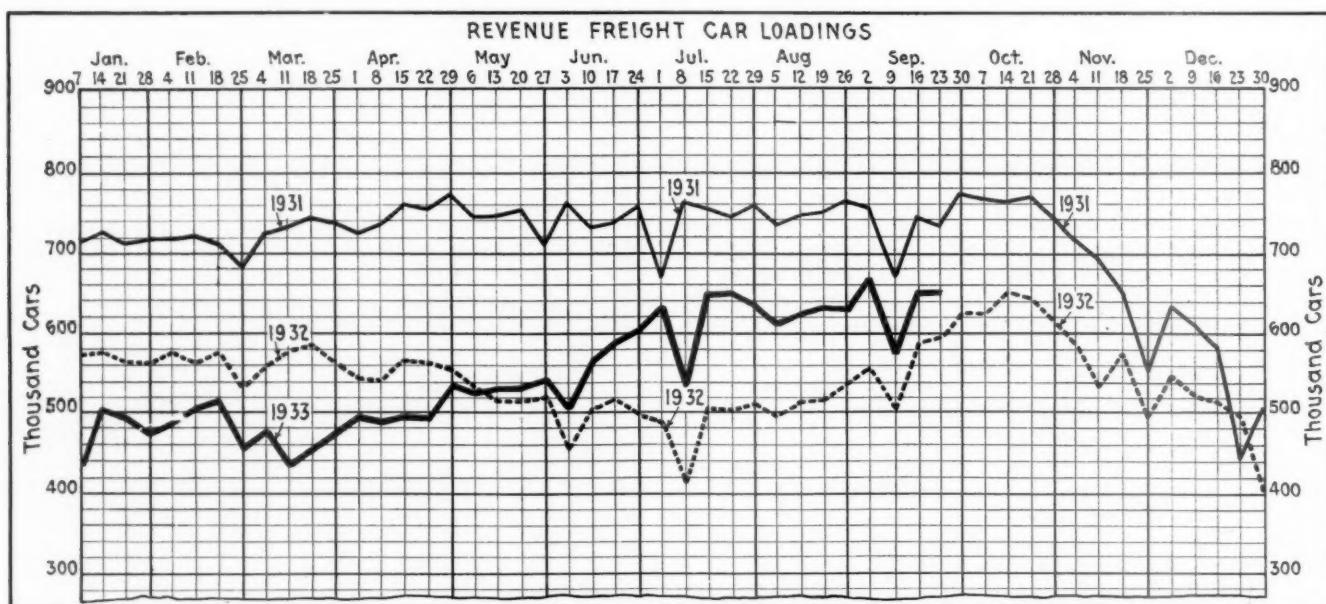
Service Division of the American Railway Association, follows:

Districts	Revenue Freight Car Loading			
	Week Ended Saturday, September 23, 1933	1933	1932	1931
Eastern		141,091	131,363	159,789
Allegheny		125,408	107,419	146,719
Pocahontas		48,680	41,421	48,199
Southern		89,713	88,134	104,207
Northwestern		96,961	75,281	100,286
Central Western		96,085	96,744	115,517
Southwestern		54,731	55,242	63,319
Total Western Districts		247,777	227,267	279,122
Total All Roads		652,669	595,604	738,036
Commodities				
Grain and Grain Products		33,697	36,046	36,978
Live Stock		21,694	23,110	25,191
Coal		119,412	113,147	128,715
Coke		6,567	3,700	4,715
Forest Products		25,079	18,577	25,525
Ore		35,689	5,599	25,806
Mdse. L. C. L.		174,443	178,653	216,811
Miscellaneous		236,088	216,772	274,295
September 23		652,669	595,604	738,036
September 16		652,016	587,246	742,614
September 9		571,387	501,537	667,750
September 2		666,652	561,325	759,871
August 26		631,998	537,767	763,551
Cumulative total, 38 weeks		20,761,895	20,351,034	27,943,995

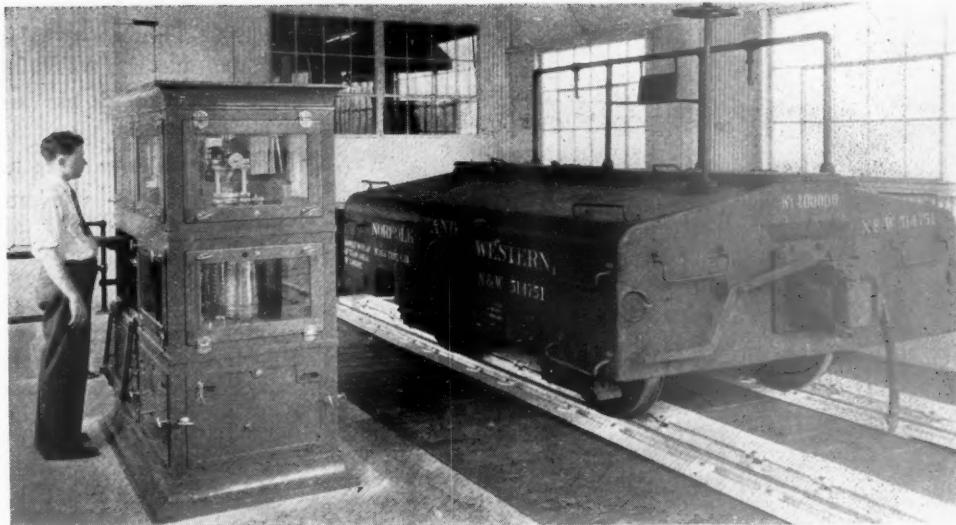
Car Loading in Canada

Grain and grain products are not moving in Canada in the same volume as in September last year due to the present large quantities in store at terminal elevators and to the unusually heavy and early movement last year. The decrease for the week ended September 23 was 7,452 cars. Merchandise also was lighter than last year by 1,277 cars, but all other commodities showed gains and the total loading of 47,387 cars was 4,528 cars below last year's total, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
September 23, 1933	47,387	19,964
September 16, 1933	47,634	20,638
September 9, 1933	41,027	18,442
September 24, 1932	51,915	19,007
Cumulative Totals for Canada:		
September 23, 1933	514,163	30,328
September 24, 1932	583,735	42,803
September 19, 1931	597,869	58,206



A 100,000-lb. Scale Test Car
Being Weight-Tested on the
New Master Track Scale
of the Norfolk & Western



The Latest in Master Track Scales

Unit on Norfolk & Western incorporates many refinements
to insure accuracy of weights

MINDFUL of the importance of the accuracy of its track scales, which determine the weights of shipments on which revenues are based, the Norfolk & Western maintains one of the most modern and highly refined master track scales in the country. This scale, which was put in service late in 1931, is of the two-section plate fulcrum type, with a capacity of 150,000 lb., and is located at the company's scale shop at Roanoke, Va. Since its installation, its sustained accuracy in checking and establishing the weight of scale test cars, which, in turn, repeatedly check the accuracy of the 81 track scales on the system, has more than justified the careful thought and refinements incorporated in both the scale design and its housing.

The new scale is the third to be owned by the Norfolk & Western, the first having been installed in 1911, only to be relieved in 1914 by a second one with a capacity of 100,000 lb. This latter scale, while of the knife-edge type, as was its predecessor, served adequately until the increasing weight and capacity of freight equipment made it desirable to provide a new scale of larger capacity, and, incidentally, one of greater sustained refinement over a prolonged period of service. As a result, the new 150,000-lb. two-section, plate fulcrum-type scale, the latest development in scales, was installed.

Outstanding Feature

The outstanding feature of the plate fulcrum construction employed in the new scale is that, through the use of plate fulcrums instead of pivots and bearings as in knife-edge construction, it affords a means of fixed connection between the load blocks and the lever system of the scale. The load applied to the scale passes directly down through the thin webs of the plate fulcrums, which, although thin, are designed with ample cross sectional area to provide a large factor of safety and, at the same time, be capable of the slight flexure necessary to produce movement of the scale beam. Through the direct connection afforded by the plate fulcrums, there

is absolutely no chance for wear due to contact between pivots and bearings, such as occurs in the knife-edge scale construction. It is expected, therefore, that the new scale will remain permanently accurate under heavy service conditions.

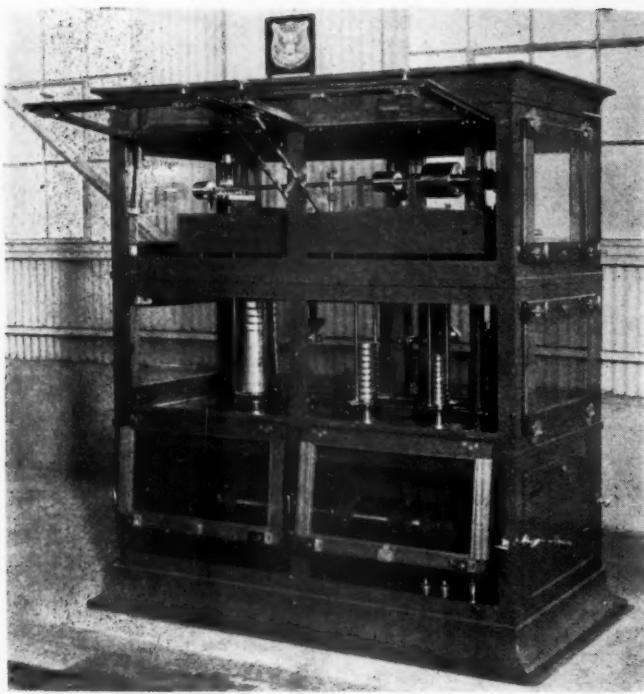
Weigh Bridge and Pit

The new master scale, which has an effective weigh-bridge length of 12 ft., has four main levers, which transmit the scale loads through plate fulcrums to two longitudinal extension levers. These latter levers, in turn, transmit the loads through plate fulcrums to a transverse extension lever, which is connected directly to the weigh-beam.

The scale rails, which are 12 ft. long, are supported on rail columns, which, in turn, are supported on 30-in., 180-lb. girder beams, one under each rail, securely cross-braced. The weigh-bridge is fixed at one end and is free to move at the other, thereby providing for expansion and contraction with temperature changes. The fixed end is supported by means of a transverse casting which engages directly with the bearing blocks, while the movable end of the bridge is supported on heavy steel struts, with hardened ends which are ground to a radius and engage with hardened steel plates at the top and bottom.

The scale pit is covered by a plank deck, with longitudinal openings for the scale rails, the tops of which are about level with the top surface of the deck. Hinged steel plates are provided along the rail openings and are laid over the rails when the scale is not in use, to keep dust and dirt from the rails and weigh-bridge. These plates can be turned back readily when it is desired to use the scale.

The scale pit is of monolithic reinforced concrete construction, and the main section, inside, is 24 ft. long by 10 ft. 6 in. wide by 11 ft. 4 in. deep. The neck of the pit is about 11 ft. long by 11 ft. wide, and is covered by a section of reinforced concrete floor which supports the weigh-beam cabinet. The entire pit was thoroughly



A Close-Up View of the Beam Cabinet (Open) Showing the Three Groups of Counterpoise Weights in the Center Section

waterproofed to prevent moisture from entering it, with the possibility of corroding the scale mechanism. All piers and footing areas supporting any part of the lever system were bush hammered and carefully rubbed down to a true smooth level.

The Lever System

The weigh-bridge is supported at each end by heavy transverse supports, each with their respective main bearing blocks, also steel castings, which carry the main load fulcrum plates whereby the load is transmitted to the main levers of the lever system. The main levers are each connected to the longitudinal extension levers by two shoulder bolts. These bolts connect steel bearing blocks, which, in turn, engage the plate fulcrums in the extension and main levers. The longitudinal extension levers are connected to the transverse extension lever by means of vertical struts which have a plate fulcrum at each end. The lower plate fulcrum rests on a platen, which, in turn, is suspended by substantial rods from a bearing block which engages with a load plate on the transverse extension lever. A stay rod keeps the end of the transverse extension lever in correct position.

The three extension levers are provided with nose irons which have machined tongue-and-groove engagement with the levers, thereby insuring movement of the plate fulcrums truly along the center lines of the levers and in exact parallel alignment. Movement, or adjustment, of each nose iron is controlled by a non-corroding adjusting screw.

The main levers of the scale are heavy steel castings, 37.275 in. in length, with a multiplication of 3.5, while all of the extension levers are double-web iron castings. The longitudinal extension levers are 8 ft. 2 in. long, with a multiplication of 6 1/8, while the transverse extension lever, from the center of the scale to its tip end, is 10 ft. long and has a multiplication of 4.665. The total multiplication of the lever system to the butt of beam is 100.

The plate fulcrums throughout the scale are of special chromium steel, which was afforded a special heat treatment and then machined and ground to exact dimensions.

This steel, known as Presto alloy steel, heat-treated, has the following physical properties:

Elastic limit, not less than 160,000 lb. per sq. in.;
Tensile strength, not less than 200,000 lb. per sq. in.;
Elongation in 2 in., not less than 5 per cent;
Reduction in area, not less than 25 per cent.

All surfaces of levers, nose irons, bearing blocks and lever stands, against or on which the fulcrum plates bear, were carefully ground to afford perfect contact. All of the fulcrum plates transmit the loads by compression only, and all of them, with the exception of the plates of the main levers, are secured in place by wedge blocks secured by tap bolts. Load plates of the main levers are held in place by wedge blocks secured by tap bolts.

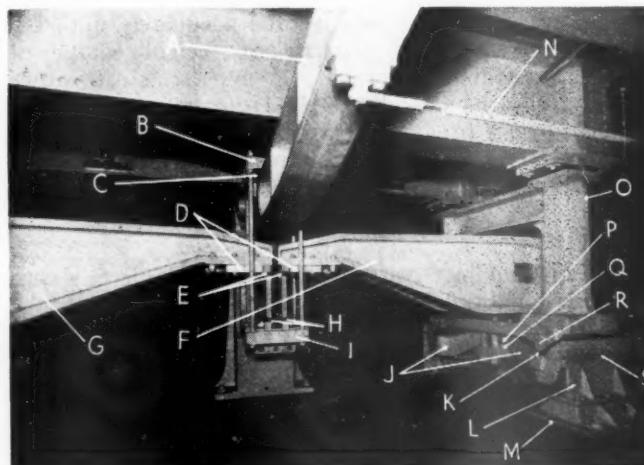
The transverse extension lever stand is made with a liberal base and with a heavy cross section throughout to preclude any possibility of distortion. The main and longitudinal extension lever stands are supported directly on the main base plate, which is heavily reinforced in order to transmit the loads evenly over the foundation. The main base castings are accurately machined on both upper and lower surfaces and are secured to the foundation by means of cinch anchor bolts. The main and extension lever stands are bolted to the upper surface of the main base castings and are accurately doweled in exact position.

Weigh Beam-Mechanism and Housing

The weigh-beam mechanism is entirely enclosed in a cast metal frame cabinet which is provided with hinged plate glass windows. Furthermore, a glass partition in the cabinet separates the operating handles from the weighing mechanisms, so that even when the scale is in use, no air currents can strike and affect the position or action of the beam.

The weigh-beam frame is a steel casting, which is accurately machined all over, while the beam head is made of open hearth steel and is bolted and doweled to the beam frame. The beam is connected to the beam stand by means of a fulcrum plate of Swedish Steel Tape held in position by a steel clamping block, while it is connected to the scale proper by means of two rods which engage bearing blocks at each end. The bearing block on the beam end of the rods is connected to the beam by means of a fulcrum plate of Swedish Steel Tape and is held in position by a steel clamping block.

The load from the weigh-bridge is counterbalanced by



The Fixed End of the Scale, Showing Details of the Lever System

A—Transverse Extension Lever; B—Bearing Block; C—Fulcrum Plate; D—Nose Irons; E—Fulcrum Plates; F and G—Longitudinal Extension Levers; H—Fulcrum Plates; I—Platen; J—Main Levers; K—Main Load Fulcrum Plate; L—Main Lever Stand; M—Main Base Plate; N—Transverse Lever Stay Rod; O—Transverse Support; P—Fulcrum Plate; Q—Bearing Block; R—Main Bearing Block; S—Fulcrum Plate

three groups of telescopic counterpoise weights. The first of these groups, consisting of fourteen 10,000-lb. weights, is located 40 in. from the main fulcrum; the second group, consisting of nine 1,000-lb. weights, is located 20 in. from the main fulcrum; and the third group, which consists of nine 100-lb. weights, is located 8 in. from the main fulcrum.

All of the telescopic counterpoise weights are made of tin bronze, gold plated to prevent tarnishing or change in mass due to oxidation. Prior to their application to the scale, the weights were sealed to the Bureau of Standards' Class B. tolerances as follows:

Indicated Weight	Actual Weight	Tolerance
100 lb.	0.5 lb.	0.1 gr.
1,000 lb.	2.0 lb.	0.3 gr.
10,000 lb.	10.0 lb.	0.8 gr.

The beam is provided with a fractional bar graduated in 1-lb. intervals up to 100 lb., and a vernier poise on the bar permits accurate readings to the nearest $\frac{1}{10}$ lb. The operation of both the telescopic weights and the vernier poise is controlled by levers in the middle section of the beam cabinet, which, through suitable operating mechanisms, not only apply the desired number of each group

of weights, but also provide an indication in numerals of the amount represented by the counterpoise weights applied to the beam.

In order to increase the accuracy and sensitivity of the beam, an indicator with a high multiple is connected to the tip end, which greatly magnifies the beam movements. This enables the operator to make extremely accurate readings readily and without difficulty.

The scale is housed in a new scale house, which is 40 $\frac{1}{2}$ ft. long by 25 ft. wide and of corrugated sheet metal construction with sectional steel sash windows. The foundation for the building proper is entirely independent of the scale pit and scale foundations, a measure taken to minimize the transmission to the pit of any vibration which may occur in the building itself.

The scale was furnished by E. and T. Fairbanks and Company, St. Johnsbury, Vt., which company also supervised its installation. The actual work of installation was carried out by the railroad under the direction of W. P. Wiltsee, chief engineer, and J. R. Talbott, superintendent of transportation, assisted by F. P. Turner, principal assistant engineer, and H. A. Tate, general scale inspector.

Experiment in Store-Door Service Welcomed by Co-ordinator

Eastman makes public letters on subject which have passed between him and President W. W. Atterbury of P. R. R. and President F. E. Williamson of N. Y. C.

WASHINGTON, D. C.

LETTERS which have passed between Joseph B. Eastman, federal co-ordinator of transportation, and President W. W. Atterbury of the Pennsylvania, and President F. E. Williamson of the New York Central regarding the Pennsylvania's proposed experiment with store-door receipt and delivery of less-than-carload freight were made public by the co-ordinator on September 28 as desirable "in view of the general interest in this matter among both railroads and shippers."

The sum and substance of these letters, he said, is that President Atterbury asked the Co-ordinator whether he would object to the filing by the Pennsylvania of tariffs providing for store-door receipt and delivery of less-than-carload freight. The Co-ordinator replied that he would welcome such an experiment. Some time thereafter President Williamson wrote expressing the opinion that the Co-ordinator should forbid this experiment by the Pennsylvania, at least until the Co-ordinator had completed his own study of the handling of less-than-carload freight by all transportation agencies. The New York Central president contended that the proposed service would impair the net earnings of all the carriers in the Eastern region, and also violate certain provisions of the Interstate Commerce Act.

The Co-ordinator replied to President Williamson that he would not be justified in forbidding the experiment without evidence pointing unmistakably to the conclusion that it will result in waste; that the experience already had with such store-door service, both in this country

and abroad, does not point that way; that there is no better way to add to knowledge on this subject than by actual tests; and that if the experiment results in infractions of the Interstate Commerce Act, there is a remedy before the commission. He further pointed out "that the Universal Carloading & Distributing Company, a car-forwarding company which the New York Central apparently controls, is now, and for some time has been, furnishing such service."

General Atterbury wrote on August 28 that for some time past the Pennsylvania had under consideration the establishment of collection and delivery of less than carload freight generally throughout the system but that before going ahead with the necessary contracts for trucking service at the numerous stations and the preparation and filing of tariffs, he wanted to make sure that it would not in any way conflict with the research work J. R. Turney, director of the Section of Transportation Service, is now carrying on in connection with collection and delivery, etc.

Mr. Eastman replied that neither he nor Mr. Turney could see where there would be any conflict, and that in fact "we are inclined to welcome such experiments."

On September 20 Mr. Williamson wrote to Mr. Eastman saying in part:

During the past few months the Presidents' Traffic Conference, Eastern Territory, has had under consideration a suggestion that store-door pick-up and delivery service be inaugurated throughout Official Classification territory. The Pennsylvania Railroad has been the principal proponent of such a plan. Many of the other principal carriers in the territory

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have not been in favor of it for reasons which I will state briefly hereafter.

At a meeting of the conference on August 23, 1933, it was the consensus of opinion that action with respect to this subject should be deferred until the results of the detailed studies now being made under your direction should become available. However, the Pennsylvania Railroad announced that "if, after conference with representatives of the federal co-ordinator, it should be found that the arrangements proposed by that company for direct collection and delivery service at points in Official Classification territory will not conflict with the suggestions which the federal co-ordinator may have to offer in this connection, such arrangements will be published."

On September 1, President Atterbury addressed a letter to Chairman Lawrence, attaching copies of an exchange of letters which he had with you, and referred to the fact that you welcomed such an experiment. Accordingly, he instructed Chairman Lawrence to advise the members of the Presidents' Traffic Conference that the Pennsylvania intended to proceed with the publication of tariffs to cover complete collection and delivery service at all points served by the Pennsylvania. Other roads which might want to inaugurate similar services were invited to participate in conference with the Pennsylvania to work out the details. This invitation was considered at a meeting of the traffic executives held at Chicago on September 14. Only the Boston & Maine and Maine Central, who already render such service in some manner, the Grand Trunk who render service of a similar character in Canada, and the Wheeling & Lake Erie, concurred in the proposition of the Pennsylvania Railroad.

It is obvious that the proposed action of the Pennsylvania, which reaches nearly every city of consequence in Official Classification territory, directly affects all other carriers in that territory; and that such action on the part of the Pennsylvania must necessarily force the other carriers to protect themselves; because, while store-door collection and delivery service, once put forth as a panacea for terminal troubles, now is being advanced as an answer to the motor truck problem, at the same time it is one of the most powerful weapons by which one carrier can penetrate another's territory. One could not expect the other carriers to compete for business with a scale of class rates 10, 15 or 20 cents per 100 pounds higher than that maintained by the Pennsylvania, which is substantially the result of this present proposal. It was, therefore, most surprising to learn that you had expressed yourself so emphatically on a proposal which so greatly affects carriers other than the Pennsylvania without affording such other carriers an opportunity to express their views.

In my opinion the proposal of the Pennsylvania calls for action by you under the Emergency Transportation Act, 1933, because it is contrary to at least two provisions of that act which are to encourage and promote or require action on the part of the carriers which will (a) avoid unnecessary duplication of services and facilities of whatsoever nature, and (b) control allowances, accessorial services and charges therefore, and other practices affecting service or operation to the end that undue impairment of net earnings may be prevented. The act further provides for the immediate study of other means of improving conditions surrounding transportation in all its forms and the preparation of plans therefor. In accordance with this latter provision you have instituted a study with respect to the handling of less-than-carload freight by all transportation agencies by sending questionnaires to railroads, railroad officials, shippers and truck operators. These questionnaires are drawn so as to explore to the utmost all phases of this problem. Answers to these questionnaires should give you in great detail the results achieved by various carriers which have instituted collection and delivery service to a greater or lesser extent. Certainly you should permit no action affecting so greatly and so directly the interests of other carriers who are not convinced as to the merits of this service, at least until you have completed that study. I respectfully urge that you follow such a course for these reasons, among others.

The following figures of the New York Central, including its leased lines, show for the years indicated revenue received on less-than-carload freight, cost of collection and delivery service, and percentage of such cost to total revenue:

	Total Revenue	Cost of C&D Service	% of Total Rev. that C&D service would cost
1929	\$47,709,764	\$7,325,646	15.3
1930	40,387,060	6,362,090	15.8
1931	32,746,319	4,825,816	14.7
1932	23,768,117	2,935,603	12.4

Similar figures for the Pittsburgh & Lake Erie are:

1929	\$ 574,683	\$ 329,080	57.2
1930	543,013	262,220	48.2
1931	472,851	186,692	39.4
1932	303,344	111,180	36.6

For the purpose of the above calculations, the cost of collection and delivery service has been figured at 5 cents per

100 pounds for each service performed by the New York Central. Such a trucking rate is considered to be most conservative as it is intended to apply the service throughout the large cities where the rates would run from 10 to 20 cents per 100 pounds. But even with the low figure of 5 cents per 100 pounds, in 1932, our leanest year, the absorption of the pick-up and delivery service would have cost the New York Central nearly \$3,000,000, or 12.4 per cent, of the total less-than-carload revenue. On the Pittsburgh & Lake Erie it would have absorbed over 36 per cent of the less-than-carload revenue. The present proposal of the Pennsylvania Railroad, it is true, contemplates absorption of the entire cost (subject to a minimum of 30 cents per cwt.) only on hauls less than 260 miles with gradations above that. But it is inconceivable that, as a practical matter, not to speak of the question of law as interpreted by the commission in various cases in which it has considered store door delivery service, a line could be drawn where a plus charge could be collected for the service. This is particularly true since the class rates within Official Classification territory have been prescribed by the Interstate Commerce Commission and any change in the relationships of those rates as between cities would undoubtedly subject the carriers to the most serious complaints.

It is also the best judgment of our traffic officers that once this service is inaugurated on less-than-carload freight, it will eventually be extended to carload freight, particularly such carload freight as moves on class rates. There, too, the commission has, after exhaustive investigation, prescribed the percentages which each class should bear to the other and by absorbing the cost of store-door delivery on less-than-carload freight amounting to 10 or 20 cents or more per 100 pounds there results of course a most serious disruption between the relationships of rates on carload traffic as against those moving less-than-carload traffic. Again, it is unsound to consider that truck competition extends merely to less-than-carload freight. This competition is very severe with respect to many commodities, particularly commodities which move on class rates or rates which are made with a definite percentage relationship to carload rates. The soundest procedure seems to be to make a rate which, in view of all the circumstances, will hold a particular class of traffic to the rails and at the same time yield the carriers some profit. It is simply a waste of carriers' revenue to make a general reduction where such reduction is unnecessary. I think it is most striking that even in 1932, a year of light business and a year in which the motor truck competition was most severe, that our revenue on less-than-carload freight amounted to nearly \$24,000,000. It is also of great significance that this revenue was 50.2 per cent of the 1929 revenue, while the 1932 carload revenue was 50.1 per cent of the 1929 revenue. In other words, the decrease from 1929 to 1932 was practically the same in both classes of traffic, and any argument which might be put forth on behalf of the collection and delivery service as the means of meeting motor truck competition on less-than-carload freight could, on such a showing, be made with equal force as to carload freight.

It might be said that had we absorbed the cost of store-door delivery and collection service in 1932 we would have had more less-than-carload freight. That is an unsound assumption. Because of the nature of the truck competition which we encountered in 1932, it is a fair conclusion that the tonnage which we did retain was not susceptible to successful truck competition. Absorption of drayage charges on such business would have been a sheer waste of carriers' revenue. The additional business needed to offset the net loss would have been very great and that would have to be long haul business. It would not have been of much avail if we had secured a greater volume of short haul less-than-carload freight on which there is little, if any, profit. In many instances, as you know, it would have merely added to the losses which we sustained on much of that short haul traffic.

It has been our experience that the demand for this service is not due to a desire on the part of the shippers for the service as such. They are only interested in it as a means of reducing their transportation costs. Our experience also has been that in many cases desirable less-than-carload traffic has been and can be retained on the rails by specific reductions in rates. In other instances, the trucks will handle the business at such low rates that the railroads could not possibly meet them. In other instances, the service rendered by the trucks is of such a nature that the railroads could not meet the situation by any reasonable reduction in rates. The general institution of store-door delivery and collection service, amounting as it does to general reductions in the rates, would simply mean the establishment of another base from which all of these situations would have to be examined again.

Another phase of this proposal which has serious implications is that it practically means restoration of the arrangements which were in effect many years ago, whereby railroads made allowance for drayage in lieu of switching in order to secure traffic against their competitors. The commission had

occasion in its early history to consider some of these situations. In practically all of the larger cities certain carriers' facilities are more advantageously located than those of other carriers. Others are more favorably situated with reference to the location of industries on the rails. In the aggregate these facilities represent the expenditure of many millions of dollars and usually it is more economical to handle freight through these facilities which are naturally tributary to them. A proposal such as that of the Pennsylvania immediately neutralizes such a condition. It means that a carrier such as the D. T. & I. with no industries on its rails in the city of Detroit, is placed on an equal competitive advantage with the Michigan Central which has extensive freight house, team track and private side track facilities in the city which have cost it many millions of dollars and on which it pays heavy taxes. Should the D. T. & I. attempt to duplicate by physical construction the facilities of the Michigan Central, the commission would undoubtedly refuse appropriate certificate under paragraph (18) of Section 1 on the ground that it would be an unnecessary duplication of facilities and would tend to render the Michigan Central less able to perform its functions as a common carrier.

It is unnecessary to stress further the point that the inauguration of this service constitutes an extension of the rails of each carrier to all industries within an industrial community. The same considerations which the Supreme Court has stated as underlying the physical extension of carriers' rails should govern the consideration of the extension of carriers' service by this means.

Another feature of the situation which is disquieting is that brought about by varying trucking charges from and to various railroad stations in the same city. The charges from one station to a particular industry might be twice that of the charge from the station of another carrier on account of different hauls. It opens up many possibilities for discrimination as to which the commission is fully informed following its investigation of constructive and off-track freight stations in New York and St. Louis. See 156 I.C.C. 205.

Without going into greater detail, it seems to me that the proposal of the Pennsylvania would result, among other things, in an unnecessary dissipation of the net revenue of the carriers and in unnecessary duplication of facilities. I respectfully urge, therefore, that in the exercise of your powers under the Emergency Railroad Transportation Act, 1933, the institution of store-door delivery and collection service proposed by the Pennsylvania be postponed at least until you have completed your study of the handling of less-than-carload freight which is now under way.

Mr. Eastman, replying on September 26, said:

My letter to President Atterbury did not purport to approve the methods and procedure which the Pennsylvania proposes to follow in its experiment. In fact I have no knowledge of what it intends to do other than the information reflected in my correspondence with President Atterbury. On the other hand, the letter was not the hasty expression of an unconsidered opinion. However, I did not then know of the opposition to the experiment on the part of other carriers which is expressed in your letter, and for that reason I have reviewed the matter again.

If there had been no experience with the collection and delivery of less-than-carload freight, there would be more ground for your fear that it would unduly dissipate carrier revenues in the Eastern region and for your contention that it is my duty to forbid or discourage such an experiment as the Pennsylvania proposes, at least until certain of the investigations which I now have under way have been completed. But there has been considerable experience.

Collection and delivery service has been rendered in England and other countries for a number of years past, and I am advised by responsible officials of English railways that they consider it an indispensable part of their carrier service. Similar experiments have been made within the past few years by a number of carriers in this country, and, so far as I am advised, in no instance has the service been abandoned as unsuccessful or unprofitable. During the current year the experiment was begun in the Southern region. One of the largest carriers in that region reports that for the month of July, four and one-half months after the experiment was begun, the gross revenues upon the known traffic recovered on that account were nearly three times the cost of furnishing the service for all traffic. I have reports of similar results in other regions.

Collection and delivery service has been offered by the carloading companies since their organization. Originally this service was optional and at an additional charge. Several years ago they offered delivery universally as a part of their service, and in recent years they have gradually extended their collection service until now it applies to a substantial, if not a major, part of their tonnage. While no special charge is assessed by these companies for collection and delivery, I am told that their rates were revised to include this service.

These companies handling less-than-carload freight in competition with the railroads evidently found it profitable, as well as necessary, to render this complete service, and as the New York Central controls the Universal Carloading & Distributing Company (the largest of these carloading companies) through a so-called loan and option agreement, I assume that the practices of that company meet with the approval of your officers. In this connection I think it appropriate to point out that the New York Central is hardly in a position to complain of competitors doing directly by tariff what it is doing indirectly and without tariff.

The merchandise survey which is under way in the Section of Transportation Service, while far from complete, has gone far enough to indicate unmistakably that in the territory served by your lines and those of the Pennsylvania an overwhelming majority of your patrons are not only demanding collection and delivery service but are patronizing other transport instrumentalities which furnish that service, and in part upon that account.

If in the tariffs to be filed providing for this new service discriminations or unlawful practices are possible, adequate means for their review and correction are provided in appropriate proceedings before the Interstate Commerce Commission, and it is therefore unnecessary to deal with that part of your letter enumerating these possibilities.

Furthermore, I shall promptly investigate and, if the facts warrant, undertake to correct any excessive allowances which are proposed in connection with this service, if and when they are brought to my attention by complaint or otherwise.

If, as you contend, the proposed experiment will provide for an unlawful extension of the carrier's line, adequate remedy is also provided under the Interstate Commerce Act.

I note your contention that collection and delivery amounts to unnecessary waste and extravagance in the duplication of terminal facilities. Upon the other hand, there are equally strong contentions that such service will eliminate present waste and extravagance in our terminal facilities and handling. The English railways advise that the service "definitely enables the railways to operate their major stations with infinitely less (possibly 50 per cent) accommodation than would be necessary if it were left to the public themselves to collect and deliver at the station." I plan thoroughly to investigate both of these contentions during the course of my work.

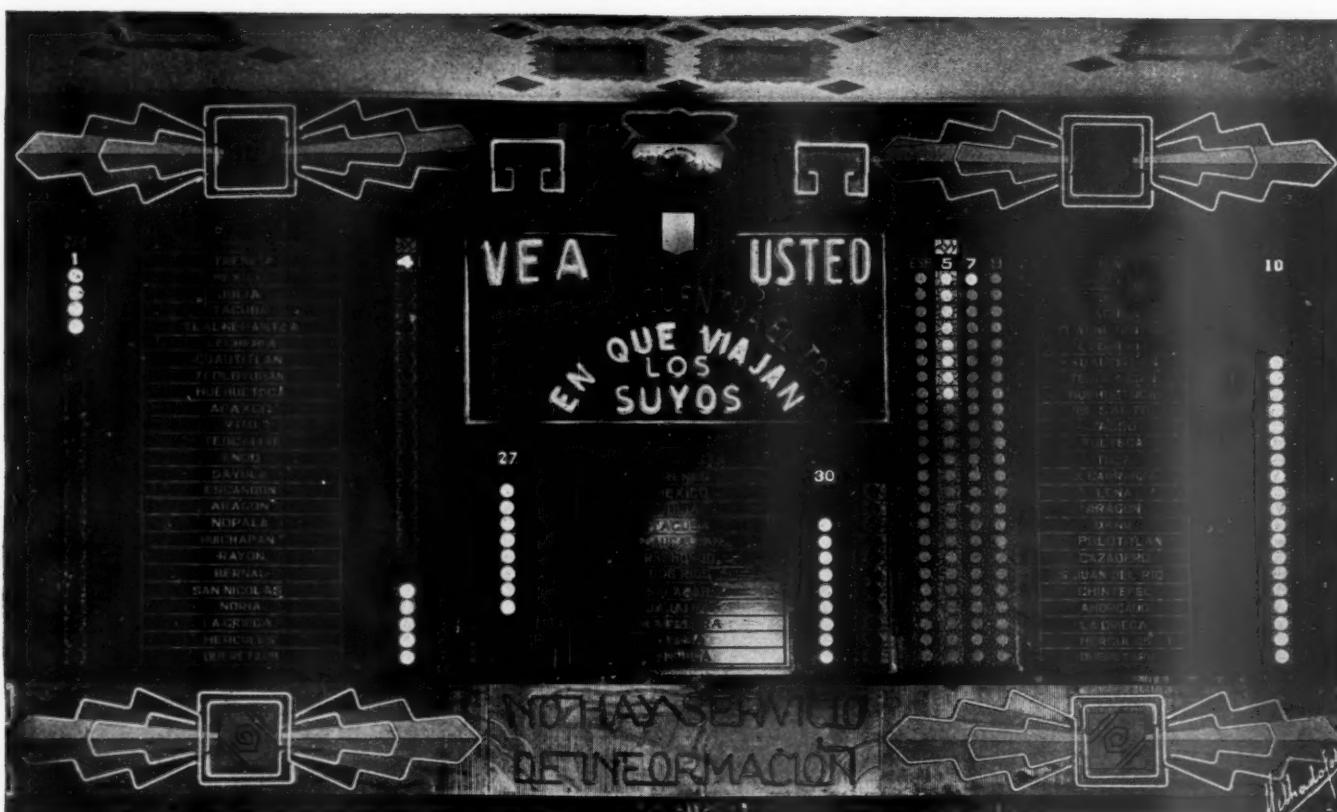
I do not agree with your contention that there is anything inherently wrong in one carrier's serving all available patrons within a metropolitan area reached by it by all lawful and economical means which may be available. I have never subscribed to the theory that a carrier by the construction of terminal facilities, lapse of time, or otherwise, establishes pre-emptive rights to the business of any industry or group of industries. If any such rights existed heretofore, they have been effectively destroyed by the invasion of the transportation field not only by motor vehicles but by carloading companies, including your own controlled company.

Under all of the circumstances, I am unable to reach the conclusion that during the progress of my investigations I should undertake to forbid or discourage experiments in the collection and delivery of less-than-carload freight. To justify any such action on my part, evidence would be necessary pointing unmistakably to the conclusion that the experiment would result in waste. In my judgment, the available evidence does not warrant that conclusion. If the results of the experiment should show your fears to be well founded, appropriate action can then be taken; but there is quite as much reason to believe that the results will be otherwise. There is no better way to add to knowledge on this subject than by definite tests.

A Novel Train Announcing Board

THE National Railways of Mexico has placed in service a semi-automatic train indicator board for the convenience of the traveling public at its Colonia Station in Mexico, D. F., which is unlike any other similar device in railway service in North America. With the installation of this board the station abolished an information service and booth and now provides no information for travelers in that manner, except what may be given by gatemen. The indicator board also substitutes for a train caller and the public is informed when a departing train is ready to receive passengers by means of

October 7, 1933



Train Indicator Board in the Colonia Station

a loud speaker system operated by the same employee who handles the indicator board.

The board is located in the grillwork that separates the train concourse from the station platforms, immediately above one of the gates. It is in full view of passengers standing in the concourse, and may be seen also by passengers in the waiting room, which is connected with the concourse by unusually wide doors.

Three main lines of the National Railways terminate at the Colonia Station, one of the four passenger stations in Mexico City, and the indicator board covers the movement of passenger trains on those lines. Two of the indicators serve the two routes to Queretaro, Quer., one via the former Mexican National and the other via the former Mexican Central, and the third the narrow gage line to Toluca. Twenty-four of the 36 scheduled stops for local trains on the Mexican National and 33 on the Mexican Central are listed on the board, while 11 of the 22 stops on the narrow gage line to Toluca are shown.

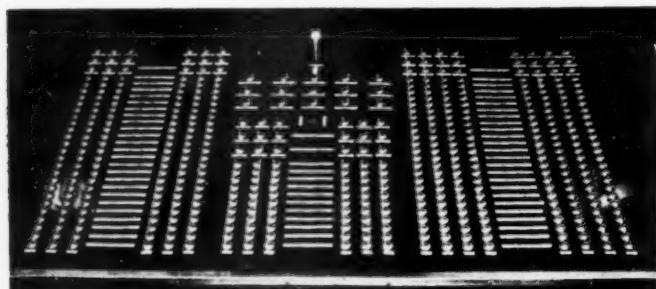
Columns of lights, one for each station, are provided for each scheduled passenger train in each direction, with a spare column for an extra or special train in each direction. Some of the lights are actuated automatically

by track circuits at stations named on the board, and others by manual switches from information received by the board operator from station telegraph operators.

The operator's booth is located on the second floor of the station, and is equipped with a control board with a switch for each light on the indicator board, as well as suitable master switches. The control board resembles a flat top desk in appearance. The operator is also provided with a microphone and loud speaker system by which information about the movement of trains beyond the limits of the indicator board—beyond Queretaro and Toluca—is given to the public. The loud speakers are located near the ceiling in the train concourse.

The train platform side of the board is equipped with a neon gas sign forming the Spanish word "Bienvenidos," meaning "Welcome," which is lighted automatically by track circuits when incoming trains reach a point one-half mile from the station. Neon gas lights also provide a decorative border for the board on the concourse side. The upper center of the board, on the same side, contains, just below an illuminated emblem of the National Railways, a neon gas legend which translated freely, informs the public that the device indicates where the train is located on which their friends are traveling. At the bottom of the board, as a part of the border, is another legend which indicates that the board is provided in lieu of the regular verbal information service.

The entire equipment was designed, constructed and installed by the telegraph and electric forces of the National Railways, under the direction of B. E. Arias, superintendent of the telegraph and electric department.



The Control Board in the Operator's Booth on the Second Floor of the Station Building

THE LONDON MIDLAND AND SCOTTISH OF GREAT BRITAIN will have more than 5,000 containers in service when it receives delivery of 390 which were recently ordered. Of the new containers, 50 will be for furniture traffic, 40 for shipments of bicycles, 200 for high-grade manufactured products and 100 of the open-top type.

Erie Supply Methods Show Planning

Work organized to function without wasted effort—Employees help—Expedited purchasing practiced

THE statistics of mercantile agencies indicate that most business failures are the result of lack of control, the most prevalent cause being the tying up of working capital in exorbitant or unsalable inventories. The Erie guards against trouble of this nature, according to A. L. Sorensen, manager of stores, by a well-planned supply organization in which every modern idea adapted to the conditions is utilized to provide an efficient supply service without undue purchasing or excessive inventories.

Economy Suggestions from Employees

Many reductions in expenditures for supplies have been effected during the past few years through suggestions of employees. A great deal is accomplished in this direction when employees who are using certain materials call the attention of their foremen to any weakness in construction that is causing excessive breakage. Employees are also encouraged to notice waste in machining rough castings, loss through material being scrapped that might be further used either for its original purpose or for some other purpose, and the possibilities of substituting materials on hand rather than making further purchases.

Practically every piece of railroad material eventually finds its way to the scrap pile and the recovery of value from this discarded material is constantly receiving attention. The scrap and reclamation plant is located at Meadville, Pa. All materials that can be used by the road are saved and the remaining waste is carefully graded and prepared for sale at the best possible price. Crank-case drainings from motor cars and marine equipment are reclaimed at Jersey City, N. J., and Youngstown, Ohio.

At the beginning of the present year all materials in stock represented a value of \$2,800,000, which has been further reduced with the assistance of the using departments by keeping the stores department advised in advance of requirements. The stores department, which is in charge of the ordering, unloading, storing and disbursing of materials received at storehouses, endeavors to maintain as small a stock as possible and at the same time to have material on hand when and where needed, thereby avoiding shortages which result in delays to work, idle man or machine-hours, or both. It is emphasized that if materials are on hand in excess of requirements, working capital is unnecessarily tied up and insurance, taxes, rent and interest charges needlessly incurred.

Handle Material in Containers

Hornell, N. Y., is the general store for the railroad and materials are shipped from that point to the various storehouses on the line in cars scheduled throughout the month. The cars are marked storehouse service and are handled in fast freight trains. The materials placed in these cars are loaded on skids and the smaller items in small containers. The receiving point merely places a hand lift truck under the loaded skid and moves it direct from the car to the location for the material. Smaller items, such as pipe fittings, nuts and cotter keys,

are placed in the small containers on the skid, and taken to the rack where the material is stocked. The skids are sent back to the general store, loaded with returnable materials and articles for repair.

Many materials, including bolts, brake shoes, journal bearings and brasses, are received on skids from manufacturers located on the Erie lines. Their use has substantially reduced the expense of packing, shipping and receiving of materials. Crane and other power trucks, tractors and trailers are also used to a considerable extent in handling materials. Overhead cranes, where available, are used for the handling of heavy castings direct from the casting platform to the shop.

For such items as signal and track motor car materials, Meadville, Pa., is the general store as the facilities for repairs are located at that point. Air-brake materials are also handled at Meadville. Dunmore, Pa., where all heavy steel car work is performed, is the general store for steel car material, while Susquehanna is the general store for passenger car materials. Division or local storehouses are located at terminal points between Jersey City, N. J., and Chicago.

Material for transportation, signaling and for maintenance of way are delivered by supply cars operated from Hornell, N. Y., and effort is made, through co-



In An Erie Storehouse

operation with representatives of the using and transportation departments, to see that materials are delivered promptly. Materials for rail-laying programs and other large projects are delivered direct to the job.

Bin Pricing Methods Used

Material issues are priced from the bin-tag prices, such prices being issued from central pricing bureaus in the general office. Every reasonable precaution is taken to prevent material, including that stored outside, to leave the premises except on properly-approved orders and certain materials are issued only in exchange for worn-out materials, such items for exchange being so indicated by markers in the storehouses. Materials subject to misappropriation are branded or stamped with the name of the company or some other identification mark. Orders for material bear the signature of those authorized to sign and facsimile signatures of such parties are filed with the storekeeper and placed over the counters so that identification of each signature can be made. At Meadville and Hornell, these orders are transmitted over the phone to a representative at the storehouse counter who writes the order, signing the foreman's name thereon, the delivery of materials required being made by power truck to the designated location.

At the larger storehouses the sectional plan of store-keeping is in effect, which places with the sectional store-keeper the responsibility of turnover, ordering, balance and surplus. This creates competition within a storehouse and familiarizes individuals with the specific classes of materials. With approximately 45,000 items of material being carried, it is realized that no one person can be thoroughly familiar with all items.

Standard items of material are ordered on the basis of consumption, and special items of material, such as wheel centers, frames and cylinders, are ordered on the basis of general inspection reports made by the mechanical department 90 days in advance.

Inventories are taken each 30 days for ordering purposes, and special emphasis is placed on accuracy to avoid a subsequent feast or famine. For accounting purposes, an annual inventory is taken, usually on October 31, when all units are counted, weighed and the results checked with the balance shown on the general books. Orders for respective classes of material are prepared on specific dates each month, which facilitates the work throughout all interested departments. Copies of these

orders, when placed with the manufacturer by the purchasing agent, are sent direct to the storekeeper at the receiving point, so that he may deal directly with the manufacturers for delivery, thereby eliminating correspondence with the purchasing agent and the manager of stores. Every effort is made to purchase and ship in the most economical units.

Purchasing Methods

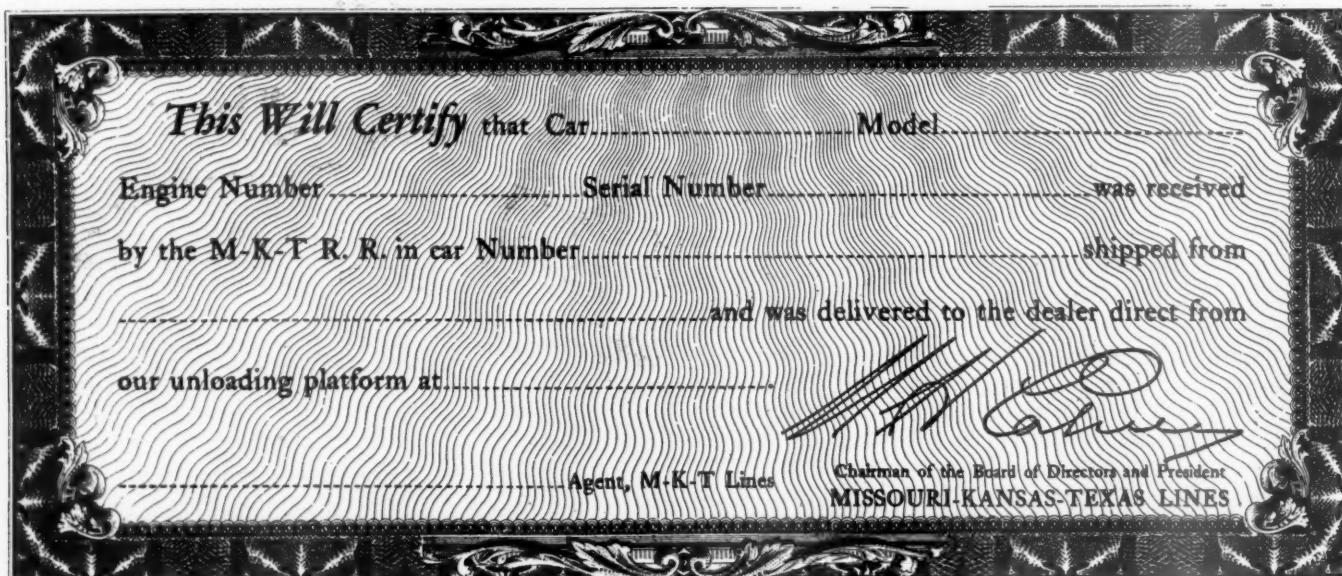
All materials possible are purchased according to specifications which provide for the necessary tests for the benefit of both the manufacturer and the railroad, and no material under test is accepted until the approved test report is received by the storekeeper. Every opportunity is given manufacturers to present their propositions, and through this method, many valuable suggestions have been received. Stress is laid on fair dealing and dependable sources of supply in all negotiations.

A committee consisting of representatives of the using and stores departments meets monthly in connection with the standardization and classification of materials, and in developing the most economical materials to be purchased. For the purpose of improving the service to the using departments, a monthly record is maintained of deliveries not made immediately on presentation of material requests from shops and each day the local store-keeper personally reviews orders for materials called for and not in stock. Statistics affording a comparison of the stock balances with those of other roads are also utilized to promote economy in the supply operation.

Stimulating Rail Shipment of Automobiles

THE Missouri-Kansas-Texas and several other railroads in Texas are issuing certificates, such as that shown in the accompanying illustration, to automobile dealers who desire them and who receive their cars by rail. The railroad agent at destination records the serial number of the vehicle and its engine and signs the certificate and gives it to the consignee, who is thus able to show it to any prospective purchaser who may inquire as to the method of shipment.

The plan is proving popular not only with railroad



employees, who naturally desire to give as much of their patronage as possible to dealers who use rail service, but dealers themselves are advertising the fact that their automobiles are received by rail as an assurance that they will be delivered in good condition. A printed circular distributed by one such dealer reads in part as follows:

"As a purchaser you are entitled to drive your new car the first mile. Some dealers allow you a few dollars more for your old car. They can do it by towing or dragging their new cars from the factory nearly two thousand miles. This damages the car in countless ways, in unseen places. _____ dealers' cars are properly loaded in the box cars at the factory—new—clean and fresh. And are not driven at all over hot, dusty roads by inexperienced drivers."

The circular also has two illustrations which the reader is asked to compare. One shows one automobile being towed over the highway by another and the second shows cars being unloaded at a railroad platform. Under the photograph showing the towing appears the following caption: "This means excessive tire wear, engine strain, body damage. One engine doing the work of two for 2,000 miles." By contrast, it is pointed out to the reader under the picture showing the rail shipment that: "This means your new car is delivered to you as new as the day it left the factory."

"Standard-Gaging" the East Broad Top

THE East Broad Top Railroad & Coal Company, faced with the handicap of its narrow-gage railroad line, and the consequent cost of lading transfers on inter-line traffic, found that, with the advent of the motor truck, much of its carload traffic was being diverted to highway carriers. In order to meet this situation there has been evolved a plan whereby standard-gage car bodies are transferred to narrow-gage trucks for handling over the East Broad Top lines, thus eliminating the lading-transfer costs and providing shippers with facilities and rates which, it is believed, will greatly reduce truck movements of carload commodities.

The East Broad Top is a short-line railroad located in the South-Central part of Pennsylvania. Its main

line extends from Mt. Union, Pa., to Alvan, 33 miles; a total of approximately 75 miles of track are operated including branches and sidings. The question of rebuilding the 3 ft. gage sections of the line to standard gage has never been seriously considered by the management because of the outlay which would be involved. Thus the present plan of delivering standard-gage cars to consignees along the line was evolved by C. D. Jones, vice-president and general manager. While coal, the principal commodity handled by the road, continues to be transferred to standard-gage cars, through the facility of a screening and preparation transfer plant at Mt. Union, there is a considerable tonnage of general merchandise, lumber and ganister rock for which the management has found the new arrangement satisfactory, practical and safe.

The East Broad Top car equipment, all of which has been built in the railroad's own shops at Orbisonia, Pa., is of 70,000-lb. capacity, but the trucks, axles and journals are built oversize in order to carry an overload. With the factor of safety allowed in the construction of these trucks, in addition to the allowable overload, the trucks have a capacity sufficient to carry the weight of a loaded standard-gage car.

The method of handling the standard-gage car at Mount Union yard is to lift, by electric overhead crane, the standard-gage car, remove its trucks, substitute the narrow-gage trucks and store the standard-gage trucks until the return of the car to the transfer yard. In order that the narrow-gage trucks would fit all types and sizes of standard-gage cars, special trucks were built with special side bearings and center plates so arranged to take any car body; and in order that standard-gage and narrow-gage cars would interchange, a special combination coupler was designed.

The first standard-gage car to be moved was a Barber Asphalt Company tank car (shown in the illustration) carrying 88,000 lb. of road tar. The car was brought to Orbisonia to be unloaded by the usual tank sprayer, and the entire movement—through the switches at Mount Union yard and the line haul to Orbisonia—was accomplished as easily as handling a narrow-gage car.

The possibilities, the East Broad Top management feels, cover a wide field. Inbound shipments can be delivered direct to consignees at points along the East Broad Top, without the delay of lading transfers at Mt. Union, and through standard gage car movements may be established for almost any commodity. Outbound shipments, such as ties, lumber, pulp wood, etc., can be loaded by shippers for through movements.



An East Broad Top Train Made Up with a Standard-Gage Tank Car between a Coal Car and the Caboose, both of which Are Narrow Gage

Rail Motor Cars Pay Out in 22 Months

Southern Pacific Lines in Texas and Louisiana, with 14 gas-electric cars, finds them economical and dependable—Operating costs per train mile, 34.35 cents

THE Southern Pacific Lines in Texas and Louisiana, a pioneer in the operation of rail motor cars in local revenue passenger train service, is in a position to speak with authority concerning the benefits to be derived from the use of this type of equipment. The operation of rail motor cars by this road began on a limited scale 25 years ago, and this type of operation has been continued and expanded during the succeeding years. Its experience in rail motor car operation has been markedly successful, from an economy standpoint.

An actual saving of at least 35 cents per motor train-mile, as compared to equivalent steam train operation, has been accomplished by the 12 cars most recently purchased, ever since they were placed in service. On this basis, the Southern Pacific estimates that the average length of time in service required to effect a saving equal to the cost of the motor cars has been less than 22 months.

Equipment in Service

The first five rail motor cars owned by the Southern Pacific Lines in Texas and Louisiana, were mechanical-drive McKeen cars, 70 ft. in length, which handled both baggage and passengers. These cars were retired several years ago.

The rail motor car equipment at present in service consists of 14 gas-electric cars. Two of these are 175-hp. cars built in 1912, three are 300-hp. cars built in 1929, three are cars of similar horsepower built in 1930 and the remaining six are 400-hp. cars built in 1930. All except the two 175-hp. cars are from 70 to 74 ft. long and are arranged with an engine compartment at the head end, a 15-ft. postal compartment, and a baggage compartment at the rear end. Three of the 300-hp. engines are the Sterling-Viking, Model TT-6. The other three of equal horsepower are Electro-Motive-Winton engines, Model 146. The 400-hp. engines are Electro-Motive-Winton, Model 148. Electrical equipment, including generators, traction motors, controls, etc., of both the General Electric Company and the Westinghouse Electric & Manufacturing Company, are used. The power plants, in most respects, are the stand-

ard equipment of the manufacturers. The engines are equipped to burn either gasoline or distillate, the selection of fuel being determined by the local market conditions.

The cars are painted olive green, the front ends being striped with aluminum lacquer to make the approach of the cars more noticeable and to lessen the likelihood of grade crossing accidents. The construction of the front of the cars includes wide-vision windows with safety-type glass. To provide the maximum of safety in operation, the air-brake system employed includes the safety or "Deadman" control, which decelerates the engine to idling speed and applies the brakes in case the foot pedal and the brake handle are released at the same time.

While the two older cars have given good service within the limitations of their power, the more important motor car runs are handled by the 12 modern cars, and the results of operation referred to in this article are confined to the service of these cars.

Operating Practices

The assignment of motor cars to particular runs is regulated by seasonal and other changes in traffic requirements. Thus, the utmost benefits from the operation of this type of equipment are obtained. In regular operation, the 300-hp. cars haul a single steel coach trailer, of a nominal weight of 50 tons, while the 400-hp. cars are permitted to handle two such trailers or their equivalent. In emergency or for short distances, an additional 50-ton trailer is occasionally permitted. On some short runs of 50 to 60 miles, a 50-ton coach and a 75-ton Pullman car are regularly operated behind a 400-hp. car. Scheduled speeds, from terminal to terminal, are practically all over 30 m.p.h., with several between 34 and 37 m.p.h.

The territory through which the Southern Pacific rail motor cars are operated is a rolling country with a number of steep grades on several of the runs. The accompanying map shows the lines over which these cars have been operated at one time or another, the majority of the runs having been made, of course, concurrently. These various runs, with the number of miles per motor



Electro-Motive-Winton 400-Hp. Rail Motor Car, in Service on Southern Pacific, Lines in Texas and Louisiana

car per day made by the equipment assigned to them, are as follows:

Run No.	Terminals	Per Motor Car Per Day
1	Houston-Shreveport	233 miles
2	Dallas-Beaumont	292 miles
3	Houston-Austin	330 miles
4	Houston-Corpus Christi	267 miles
5	Houston-San Antonio	243 miles
6	Waco-Kennedy	180 miles
7	Waco-Bremond	176 miles
8	Fort Worth-Ennis	222 miles
9	Dallas-Denison	146 miles
10	San Antonio-Hearne	373 miles
11	San Antonio-Del Rio	339 miles
12	Houston-Beaumont	168 miles
13	Houston-Galveston	115 miles
14	Austin-Llano	224 miles
15	Lafayette-Alexandria	170 miles
16	Lafayette-New Iberia	174 miles
17	Eagle Pass-Spofford	142 miles
18	Ennis-Paris	250 miles

High Availability

From an operating standpoint, the rail motor car equipment has been highly efficient. From the dates of delivery of the equipment up to January 1, 1933, the

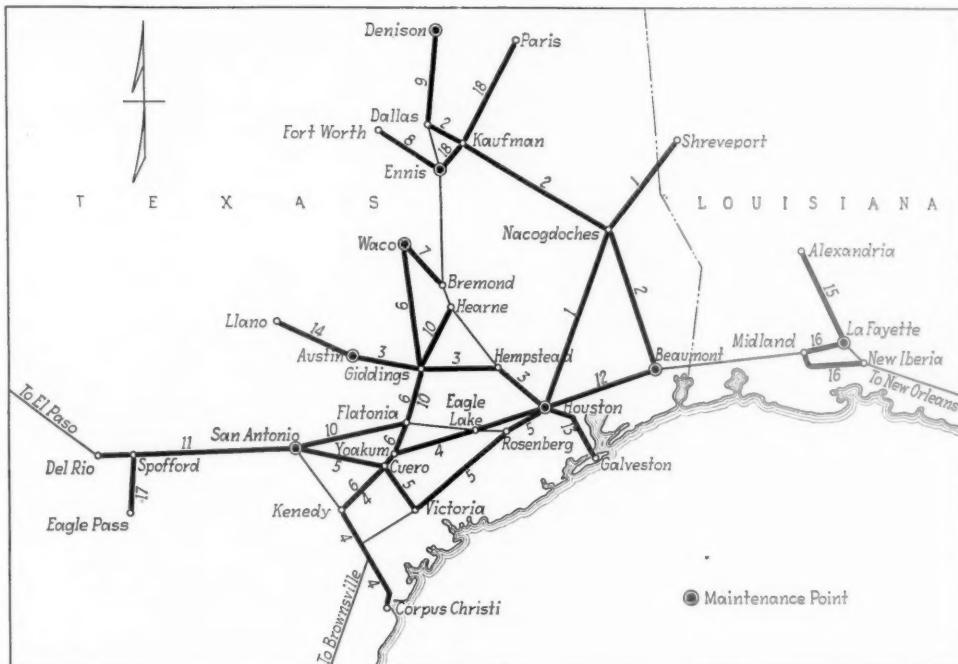
of maintenance and operation becomes 30.67 cents per motor train-mile. Total repairs to power plant equipment, motor cars and trailers, have averaged 5.01 cents per mile.

In making a comparison of the cost of rail motor car operation with the cost of equivalent train service, which presumably was replaced during the entire period by the rail motor car equipment, there are several factors, the effect of which has to be estimated. A number of intangible savings have been effected. For one thing, motor trains are not as detrimental to roadway and bridges as steam locomotives, and the requirements of water pumping and treating plants are diminished on account of the cars not requiring the addition of cooling water enroute. Other factors, such as the cost of handling at terminals, are also involved.

Disregarding these intangible savings, however, an actual saving of at least 35 cents per motor train-mile, in comparison with the cost of equivalent steam train service, has been accomplished by the 12 motor cars since they were placed in service, making a total saving of approximately \$1,137,000.

The operation of the gas-electric rail motor cars on the Southern Pacific Lines in Texas and Louisiana, has

Lines in Texas and Louisiana Over Which Southern Pacific Has Operated Rail Motor Cars. (Individual Routes Indicated by Numbers)



average miles operated per motor car per year was 85,572. The average availability of the equipment during this period was 95.24 per cent. During 1932, six of the cars had an availability of more than 97.5 per cent, one of them operating 89,666 miles that year with an availability of 99.45 per cent. Total motor train mileage for the 12 cars during their operation on the Southern Pacific up to January 1, 1933, was 3,251,641.

The operating cost of the equipment has been low. The average cost of operation and maintenance per motor train-mile over the three and one-quarter million miles of service was 34.35 cents. This figure includes the cost of all repairs to power plant equipment, repairs to the motor cars and trailers, depreciation, wages, fuel and lubricants, enginehouse expense, train supplies and expenses, other expenses, tax accruals and insurance. Of the total operating cost, 3.68 cents per mile represents depreciation and tax accruals, so that if these are deducted for comparative purposes, the average direct cost

not only proved successful from the standpoint of economy, but has been marked by dependability as well, with equipment failures infrequent. The Southern Pacific has found that the successful operation of this type of equipment calls for proper selection of equipment for the character of service to be performed, in addition to effective supervision of operation and maintenance. Under these conditions, this railway has proved to its own satisfaction that modern, gas-electric rail motor cars can be successfully operated on the majority of passenger train schedules handling light traffic.

THE NEW YORK, NEW HAVEN & HARTFORD has announced that effective October 1 its clerical forces were returned to work on a full-time basis. Since May 1, all such employees had been furloughed for two days a month without pay. The resumption of the full week is in effect a restoration of approximately a seven per cent cut in pay.

Competitive Bids Asked for Rail for 47 Roads

WASHINGTON, D. C.

COMPETITIVE bids for at least 844,525 tons of steel rail, which 47 railroads are prepared to purchase on condition of a reduction below the prevailing base price of \$40 a ton, were requested by Joseph B. Eastman, federal co-ordinator of transportation, in a letter sent on October 3 to Myron C. Taylor, chairman of the U. S. Steel Corporation, Eugene F. Grace, president of the Bethlehem Steel Corporation, L. E. Block, chairman of the Inland Steel Company, and Arthur Roeder, receiver of the Colorado Fuel & Iron Company, in accordance with the understanding reached at a recent conference with President Roosevelt. Mr. Eastman said the roads are also prepared to purchase at least 245,221 tons of fastenings, for which all concerns selling fastenings will be given an opportunity to submit prices after the rail questions have been determined.

The letter also included some personal observations by Mr. Eastman on the fact that the price of rail had been kept uniform at \$43 a ton from 1922 to 1932 and a suggestion by him that the base prices to be submitted should be below \$35 a ton. He said, that certain roads had made it a condition that the base price should not exceed that figure but that the Pennsylvania desires to place its own orders for 100,000 tons and did not stipulate a price reduction. Upon receipt of the prices the Co-ordinator will undertake the allocation of the orders among the steel companies at the lowest price submitted.

In most cases the commitments of the railroads are contingent upon loans from the Public Works Administration at 4 per cent interest, but a number of the roads expect to make the purchases without government loans. As previously reported, Mr. Eastman has been gathering figures from the railroads for a couple of weeks, through the assistance of the Association of Railway Executives, as to the amount of rail they would be willing to purchase if the price were substantially reduced. After he had received commitments for approximately 650,000 tons he took them to the White House and at a conference with the executives of three of the steel companies President Roosevelt asked the companies to submit competitive bids. An explanation of the plan was given by Mr. Eastman in his letter to the steel executives made public on October 3, but nothing was said as to whether the loans for this purpose would be subject to the 30-hour a week employment limitation included in the national industrial recovery act. The language of the law is qualified by the words "if practicable and feasible." The letter follows:

Co-ordinator Eastman's Letter

In accordance with the understanding reached at the conference with the President on Monday, September 25, at which all of you were present with the exception of Mr. Roeder, it is my pleasure to inform you that the steam railroads of the country are prepared, under certain conditions discussed below, to purchase at least 844,525 tons of steel rail and 245,221 tons of fastenings. It is quite possible that the amounts will exceed these figures.

As was also the understanding, I shall be glad if each of you will inform me by letter, as soon as possible, what the base price (f.o.b. mill, or, in the case of rails carried by water from any Atlantic Coast or Gulf port to any Gulf or Pacific Coast port, c.i.f., the port of destination) of your company, including any subsidiary companies, will be for standard Tee rails of more than 60 pounds per yard, in the event of the purchases mentioned

above. The letters will be treated as confidential, until all are in.

The railroad Rail Committee, composed of representatives of the American Railway Engineering Association and of Division IV of the American Railway Association, has under consideration the establishment of five standard weights for Tee rails, each to be rolled in only one section, and I am informed that agreement has been reached upon the two most important of the proposed standards, namely, the 112-lb. and 131-lb. weights. While I do not understand that these standards have yet been adopted by the railroad industry, I shall impress upon the purchasing railroads the desirability of submitting specifications in accordance, so far as possible, with these standards and with standard specifications of rail quality. It will be understood, however, that if specifications are later submitted which in customary trade practice have called for extras or deductions over or under the base price, such extras or deductions will be those which have been approved by the board of directors of the American Iron and Steel Institute under the Code of Fair Competition of the Iron and Steel Industry.

At the present time I am not asking for prices on the fastenings, because it is my understanding that whereas only the four companies which I am now addressing, or subsidiaries thereof, manufacture standard Tee rails of more than 60 pounds per yard, rail fastenings are sold by numerous other concerns. Inasmuch as there are some uncertainties, mentioned below, with respect to the purchase of rails, it has seemed advisable to leave the matter of the fastenings in abeyance until the rail questions have been determined. Thereafter, all concerns selling fastenings will be given an opportunity to submit prices therefor.

It is my understanding that under the Code of Fair Competition the base price named by any company will ultimately be known and may be met by any other company. I shall assume, therefore, unless advised to the contrary, that the lowest base price submitted in response to my request will become the prevailing base price for all companies. In accordance with the understanding reached at the President's conference, and proceeding upon this assumption, I shall, upon receipt of the prices, undertake the allocation of the orders among the steel companies. This will be done after consultation with the railroads concerned and with the object of obtaining the rails at the point of use at the lowest total cost, including transportation. Where costs are equal, preference will be given, as between two or more steel companies, to the one which submitted the lowest base price in response to my request.

As you know, it was the understanding at the President's conference that base prices would be submitted, in response to my request, by the steel companies independently of each other and without collusion or consultation. In this connection there are certain circumstances which I believe should be called to your attention. These are as follows:

(1) The commitments of the railroad companies for orders are very largely upon condition that there shall be a reduction in the base price below the now prevailing price, which is understood to be \$40 per ton f.o.b. mill. The only exception is the Pennsylvania Railroad Company, which is willing to purchase 100,000 tons but desires to place its own orders and does not stipulate a price reduction. Certain railroads, contemplating important orders, make it a condition that the base price shall not exceed \$35 per ton.

(2) In the case of 452,785 tons, and perhaps 502,785 tons, out of the total of 844,525 tons now proposed to be purchased, the orders are contingent upon loans from the Public Works Administration on the basis of a note from the borrower, due in ten years, bearing interest at the rate of 4 per cent, no interest to be charged for the first year, and the borrower to have the option of paying off the note in part or in full at any time. These are very favorable terms, far more favorable than can be obtained commercially at the present time, and are only offered because of the government's desire in the existing emergency to stimulate business and employment, particularly in the steel industry. The purpose of the loans must be approved by the Interstate Commerce Commission before they can be made.

(3) The Government believes that the contribution which it is thus making to the common good in the emergency should be met in like spirit by the industries affected, and unless such a spirit is manifested in the base prices submitted, there can be no assurance that the loans will be made.

(4) In this connection, permit me to make certain personal observations. The fact is that for eleven years, 1922-1932, the base price of steel rails in the country remained static at \$43 per ton, while the prices of most other steel products were steadily declining. Whenever the railroads found it necessary under the Clayton Antitrust Act to secure competitive bids, the base price uniformly submitted by all companies was always \$43. In 1932 there was a reduction of about 7 per cent to a figure, likewise uniform, of \$40 per ton. Since 1926, also, an international agreement among steel-rail producers has prevented

the importation of steel rails into this country. Prevailing prices of steel rails in other countries, however, have declined more in line with the prices of other steel products. While certain improvements in the specifications of steel rails have been made by the railroads since 1922, they are not changes which have added very materially to costs; and what small increase in cost there may have been on this account has been more than offset by technological improvements in the production of steel all the way from the mine to the mill.

While the Code of Fair Competition of the Iron and Steel Industry has added somewhat to the labor costs prevailing immediately prior to the Code, I am not informed that such costs now exceed those which prevailed prior to the depression. Moreover, the steel companies have now the prospect of large, concentrated orders which can be produced under favorable conditions, and the probability of a material reduction in the number of separate rail weights and cross sections.

These are a few of the salient facts. The available information warrants a conclusion that the base prices to be submitted should be below rather than above \$35 per ton. If this conclusion is challenged, I suggest that the way to clear up the point is to afford government accountants an opportunity to examine the books and records of the steel companies.

These circumstances are recited in order that nothing may be withheld of which you should be advised before prices are submitted. It is my belief that you will arrive at your prices in all good faith and in full realization of the emergency by which the country is confronted and of the extent to which your action may contribute to the relief of that emergency.

A list of the railroads desiring steel rails and of the purchases which they contemplate, under the conditions stated, is appended. In the list, the tonnage of fastenings has been estimated at 30 per cent of the rail tonnage, except where a higher figure was

Tentative Commitments

Name of Railroad	Rail Tons	Fastenings Tons
Atchison, Topeka & Santa Fe.....	50,000	15,000
Atlantic Coast Line.....	10,000	3,000
Baltimore and Ohio, CofNJ-Reading-Alton.....	50,000	15,000
Boston & Maine—Maine Central.....	40,000	12,000
Bangor & Aroostook.....	3,500	1,050
Clinchfield.....	3,000	900
Chicago and Northwestern.....	65,000	14,364
Chicago Great Western.....	12,000	3,600
Central Vermont.....	5,000	1,500
Chicago & W. Ind.-Bell Ry. of Chicago.....	3,000	900
Cotton Belt.....	9,000	2,700
Chicago, Burlington & Quincy.....	25,000	3,000
Chicago & Illinois Midland.....	1,750	525
Chicago, Rock Island & Pacific.....	20,000	6,000
Delaware and Hudson.....	5,000	1,500
Delaware, Lackawanna & Western.....	12,000	3,600
Denver and Rio Grande Western.....	10,000	3,000
Erie.....	30,000	9,000
Gulf, Mobile & Northern.....	5,000	1,500
Illinois Central.....	20,000	6,000
Louisiana and Arkansas.....	12,000	3,600
Lehigh and New England.....	3,285	985
Louisville & Nashville.....	25,000	7,500
Missouri-Kansas-Texas.....	4,500	1,350
Monon.....	3,000	900
Mobile & Ohio.....	3,000	900
Missouri Pacific—GCL—IGN.....	25,000	7,500
Milwaukee.....	50,000	15,000
New York, New Haven & Hartford.....	20,000	7,500
Nashville, Chattanooga & St. Louis.....	3,490	1,047
Northern Pacific.....	10,000	3,000
Norfolk & Western.....	10,000	3,000
Pennsylvania.....	100,000	30,000
Richmond, Fredericksburg & Potomac.....	500	150
St. Louis-San Francisco.....	26,000	7,800
Seaboard Air Line.....	17,000	5,100
Southern.....	50,000	15,000
Soo Line—Wisconsin Central.....	7,500	2,250
Southern Pacific.....	25,000	7,500
Tennessee Central.....	2,500	750
Toledo, Peoria & Western.....	5,000	1,500
Texas & Pacific.....	500	150
Union Pacific.....	25,000	7,500
Western Maryland.....	4,000	1,200
Western Pacific.....	20,000	6,000
Wabash.....	10,000	3,000
Central of Georgia.....	3,000	900
Total	844,525	245,221
Grand Total		1,089,746

specified. My understanding is that the railroads are prepared to take early delivery, except that the Southern Pacific will want a part of its order delivered in 1934, the Lackawanna will want 2,000 tons in 1933 and 10,000 tons in 1934, the Western Maryland will want 2,000 tons in 1933 and 2,000 tons in 1934, and the Northern Pacific will want 5,000 tons in 1933 and 5,000 in 1934.

Odds and Ends . . .

A Hobo Pigeon

Canadian National forces in the yards at Moncton, N. B., are telling proudly about an itinerant pigeon which has temporarily chosen the tender and cab of a C. N. R. switch engine as its favorite roosting place. The pigeon delights to ride the length of the yard on the engine but, oddly enough, chooses to supply its own motive power for the return trip. Despite the fact that a number of switch engines are employed in this yard, the pigeon always picks the same one for its daily trips.

"City Slickers" Make a Sale

Three suave gentlemen who probably got their start in life by selling the Brooklyn bridge and the New York post office to gullible visitors from the country put in a good day's work recently at Denison, Tex. They sold the Denison station of the Missouri-Kansas-Texas to an unsuspecting citizen of Waco, Tex. For the station and "one-third of the proceeds from the sale of tickets to the Century of Progress in Chicago", the victim paid \$1,100.

Another Use for Old Freight Cars

According to the Wall Street Journal, several discarded freight cars standing on an unused sidetrack in upper Manhattan, N. Y., gave two women an idea. They secured permission to make these cars livable, cutting windows, finishing the interiors, and putting in each car a few plain articles of furniture. One car was fitted up as a kitchen and dining room where the women serve meals to their tenants—50 of them—at \$6 a week for board and "room".

The Speed-Conscious Germans

Judging from the flood of information about the speed of their trains which the German railways are publishing, it appears that high speed in transportation is currently the subject of their keenest interest. Just now, they are recalling that exactly 30 years ago speeds previously unequalled were achieved by electrically-operated trains, built by the German affiliate of the General Electric Company and by Siemens & Halske, and operated on the German roads. On September 15, 1903, a speed of 124.88 miles an hour was reached, and this was increased on October 27 to 130.66 miles an hour. Only the fact that the track couldn't stand it prevented the placing of trains with ultra-fast schedules in regular service. There was also no such demand at that time for rapid travel that has come with the advent of the airplane and the automobile. Railway officers who are inclined to hold on to the arms of their seats when riding on 60-m. p. h. trains in this country will be interested in the casually-stated conclusion of the German railways. They have decided that a speed of around 100 miles an hour is the best for present conditions.

Medals for Efficiency

Three members of the New York staff of the Central Vermont freight department have been honored by the Italian government for services rendered in connection with the historic airplane flight of General Italo Balbo, Italian air minister, from Rome to Chicago and return. The recognition is in the form of letters and medals sent by the air attache of the Royal Italian Embassy at Washington, D. C. The three Central Vermont officers honored are J. O. Adams, general eastern freight agent, Paul R. Brownell, freight traffic representative, and Bertram H. Thome, eastbound agent. Mr. Adams was presented with a silver medal commemorative of the Balbo flight, while Messrs. Brownell and Thome each received a bronze medal of the same design. The honors were bestowed upon these officers on account of efforts which they made in connection with the handling of materials from New York to Shadiac, Que., and return. The materials consisted of two carloads of airplane parts and tools and several 1-c. l. shipments of scientific instruments and electrical equipment. Quick handling was important, especially on the return movement, which was completed within 30 min. of the time anticipated when the freight left Shadiac.

NEWS

Prince Rail Consolidation Plan Somewhat Modified

Interest in merger proposal has been revived by Co-ordinator Eastman's study

The so-called Prince plan for consolidating the railroads into seven systems, the proposed mergers being primarily on a regional basis and involving competing lines rather than those which connect "end-to-end" and do not compete, has been modified somewhat. This plan, which is the product of a considerable staff which worked under the direction of J. W. Barriger, who has since disassociated himself with Mr. Prince to become chief examiner of the railroad division of the Reconstruction Finance Corporation, was presented to Washington authorities last spring when emergency railroad legislation was under discussion. The plan was not accepted at that time and it was dropped.

Interest in it was revived, however, recently when Co-ordinator Eastman announced that his staff would study the plan carefully, in co-operation with several committees of railway officers with the thought "that the claimed economies of such schemes are so great that they ought not be disregarded but deserve careful analysis." The plan, as now revised, groups the roads, in general, as follows:

The New York Central, the Virginian, the Van Sweringen lines would form the nucleus of System No. 1, the "North system" of the eastern region. The Pennsylvania, Baltimore & Ohio, New Haven, Lehigh Valley, Norfolk & Western would be grouped as System No. 2, "South system" eastern region.

"Southeast system," No. 3, would be built around the Atlantic Coast Line and the Seaboard Air Line, while the Illinois Central would be the focal line for System No. 4, "Mississippi Valley system."

System No. 5, "Northwest system," would be centered around the Milwaukee and the Northern and the Burlington. System No. 6, "Central system," would be grouped around the Rock Island, the Frisco, the Union Pacific and Southern Pacific. No. 7, "Southwest system," would be built around the Santa Fe, the Missouri Pacific lines and the Denver & Rio Grande Western.

The principal changes in the plan from its original form are: The elimination of proposed system No. 8, which was built up around the Western Pacific and Denver & Rio Grande Western; inclusion of the Colorado & Southern in the Southwest instead of the Northwest group; inclusion of the Missouri-Kansas-Texas in the

Southwest system; inclusion of Illinois Central lines west of Freeport, Ill., in the Union Pacific-Southern Pacific system and assigning to the Illinois Central the Frisco's lines from Memphis east.

The plan also includes detailed studies of coal movement, passenger service and operations in several large terminals with recommendations for unification and the elimination of duplicate facilities. These studies have not been made public.

Samuel O. Dunn To Discuss "The Future of the Railways"

Samuel O. Dunn, chairman of the Simmonds-Boardman Publishing Company and editor of the *Railway Age*, who, as announced in the *Railway Age* of September 23, will speak at the October 10 meeting of the New England Railway Club, will take as his subject "The Future of the Railways." This meeting, which will be held at the University Club, 40 Trinity Place, Boston, Mass., will inaugurate the Fall activities of the Club.

Cowley and Hutchison Made Assistants to Boatner

J. P. Cowley, division superintendent on the Gulf, Colorado & Santa Fe, at Galveston, Tex., has been appointed assistant western regional director at Dallas, Tex., on the staff of V. V. Boatner, western regional director at Chicago for the federal co-ordinator of transportation. James E. Hutchison, who retired in 1931 as vice-president of the St. Louis-San Francisco, has been appointed assistant western regional director at San Francisco, Cal. These appointments became effective on October 1.

Wage Statistics For July

Class I railways reported to the Interstate Commerce Commission a total of 1,114,153 employees as having received some pay during the month of July, either for full time or part time. This number is 39,502 larger than the corresponding total for June, 1933. The total as of the middle of the month was 988,724, an increase of 31,192 over the number reported by the same roads for June, or 3.26 per cent. This was a decrease of 1.71 per cent as compared with July, 1932. The total compensation for July was \$121,027,027, as compared with \$115,433,189 for June, and \$118,812,282 for July, 1932. The increase in employment in July over June may also be shown on the basis of the total number of hours paid for per working day in the month. This was 8.4 per cent greater in July than in June. The number of hours per working day per name on the payroll increased from 6.64 in June to 6.94 in July.

Eastman on P. R. R.-Long Island Merger Proposal

Co-ordinator, in answer to petition, fails to see need for the suggested consolidation

Co-ordinator Eastman on October 2 made public correspondence between himself and Ernie Adamson, a New York lawyer, and President Atterbury of the Pennsylvania regarding a petition filed by Adamson that the co-ordinator issue an order requiring the Pennsylvania to absorb the Long Island, as a result of which Mr. Eastman reached the conclusion that no sufficient reason had been shown for referring the matter to the Eastern Regional Co-ordinating Committee. Addressing himself to the merits of the proposal he disregarded for the present the legal question raised by General Atterbury as to whether the co-ordinator has power to compel such a consolidation. In a letter to Mr. Adamson dated September 30 Mr. Eastman said in part:

"You request a public hearing on this matter. The Emergency Railroad Transportation Act, 1933, does not provide for public hearings by the Co-ordinator. It does provide for review by the Commission of orders of the Co-ordinator, and it is in the event of such review that public hearings are to be held. You will also note from section 6 that before the Co-ordinator can issue an order he must first bring the matter in question to the attention of the appropriate carriers' regional co-ordinating committee.

"In your petition of August 24 you mentioned three kinds of economies which you believe would result from the consolidation. I shall discuss these in order.

1. "Unnecessary costs entailed by the keeping of separate books and accounts for the Long Island. While it is true that consolidation of companies does ordinarily result in some economy in accounting, this is largely a labor-saving economy and would be subject to the restrictions on the reduction of railroad employment contained in section 7(b) of the Emergency Act.

2. "Elimination of rental paid by the Long Island for the use of the suburban section of the Pennsylvania Station. Such elimination would be a matter of book-keeping rather than an actual economy. As President Atterbury points out, the obligation of the using public to pay charges covering the costs of maintaining and operating this property plus a fair return on the value thereof would still remain, and to the extent that this property is used

(Continued on page 512)

Eight Months Rail Net at Rate of 1.72 Per Cent

Total of \$277,666,122 compares with \$148,885,399 for same period last year

Class I railroads for the first eight months of 1933 had a net railway operating income of \$277,666,122, which was at the annual rate of return of 1.72 per cent on their property investment, according to reports compiled by the Bureau of Railway Economics. In the first eight months of 1932, their net railway operating income was \$148,885,399 or 0.92 per cent. Operating revenues for the eight months totaled \$2,005,952,192, compared with \$2,068,090,684 for the same period in 1932, a decrease of 3 per cent. Operating expenses amounted to \$1,466,302,314, compared with \$1,644,345,288 for the same period in 1932, a decrease of 10.8 per cent. Class I railroads in the eight months paid \$180,778,333 in taxes compared with \$193,696,033 for the same period in 1932, a decrease of 6.7 per cent. For the month of August alone, the tax bill amounted to \$23,125,650, a decrease of \$560,934 under August, 1932.

Thirty-seven Class I railroads failed to earn expenses and taxes in the first eight months of 1933, of which 10 were in the Eastern district, 7 in the Southern and 20 in the Western.

For the month of August alone the net railway operating income was \$60,978,217, which, for that month, was at the rate of 2.12 per cent. In August, 1932, the net was \$27,985,138 or 0.97 per cent. Operating revenues for August amounted

the rate of 1.84 per cent. For the same period in 1932, their net amounted to \$7,054,119, at the rate of 0.33 per cent. Operating revenues in the Southern district for eight months amounted to \$258,465,263, an increase of 2.6 per cent above the same period in 1932, while operating expenses totaled \$191,959,257, a decrease of 10.9 per cent. Class I railroads in the Southern district for August had a net of \$5,470,784, compared with \$783,215 in August, 1932.

Railroads in the Western district for eight months had a net of \$62,919,994, at the rate of 1.03 per cent. For the same eight months of 1932, they had a net of \$22,168,816, at the rate of 0.36 per cent. Operating revenues in the Western district in the eight months period amounted to \$715,952,661, a decrease of 4.8 per cent under the same period in 1932, while operating expenses totaled \$550,190,323, a decrease of 11.1 per cent. For August alone, the Class I railroads in the Western district reported a net of \$19,938,232. The same work in August, 1932, had a net of \$10,498,436.

\$145,000,000 Expenditure Recommended for Missouri River

The Chief of Engineers has submitted to the Secretary of War, for transmission to Congress, a comprehensive report on the Missouri river with a view to the formulation of general plans for its most effective improvement for the purposes of navigation and for the prosecution of such improvement in combination with the development of potential water power, the control of floods and the needs of irrigation. This report is the result of extensive studies made since the report was authorized by Congress in 1927. The Chief of Engineers concurs in the comprehensive

P. R. R. Announces Plans for Store-Door Service

Collection and delivery at line haul rates for l.c.l. moving 260 miles or less

General W. W. Atterbury, president of the Pennsylvania, in a statement issued on September 28, outlined plans of that road for the establishment of system-wide store-door collection and delivery service for l.c.l. freight. Prior to this announcement, the Pennsylvania had sought the attitude of Federal Co-ordinator Joseph B. Eastman with respect to its proposal. Mr. Eastman's statement in this connection appears elsewhere in this issue.

The P.R.R. collection and delivery plan, the tariffs for which, the announcement states, are now being prepared for filing in the near future with the I.C.C. and state commissions, contemplates that the store-door service will be performed at the line haul rates for l.c.l. moving distances up to and including 260 mi. The service will be optional, and freight eligible for collection and delivery at line haul rates will be subject to a minimum charge of 35 cents per 100 lbs. or 50 cents per individual shipment. For freight moving beyond 260 mi., store-door service will be available at a sliding scale of charges, in addition to the station-to-station rates.

The maximum plus charge in this latter connection will be 8 cents per 100 lbs. applicable for either collection or delivery of freight moving approximately 400 mi. or more.

Trucking arrangements will involve the employment of local trucking companies who will act as agents of the Pennsylvania, the latter assuming complete responsibility for the movement from the consigner's door to that of the consignee. Patrons will deal only with a single party, the authorized representative of the Pennsylvania. Included also will be provisions for C.O.D. shipments, thus, the announcement points out, giving seller and buyer the same convenience in effecting a sale as though delivery were made by the merchant's own truck.

The new service is described in the P.R.R. statement as a far-reaching step to meet the present day requirements of industry and commerce and attract additional traffic.

"Inauguration of system-wide door-to-door collection and delivery of less-than-carload freight by the Pennsylvania Railroad," General Atterbury stated, "is a logical development of the position of our management that, in the public interest, rail and truck service should be brought into the closest co-ordination."

This, he added, will combine in the most useful manner the efficiency of the railroad for the station-to-station haul with the flexibility of the truck in terminal areas. It will give the shipping and receiving public complete door-to-door service for merchandise freight over the entire territory of a major railroad system.

The Pennsylvania in recent years has established store-door collection and delivery in various limited areas. Included among

CLASS I RAILROADS—UNITED STATES

Month of August

	1933	1932	Increase Per Cent
Total operating revenues	\$297,017,776	\$249,388,763	19.1
Total operating expenses	202,452,506	187,646,631	7.9
Taxes	23,125,650	23,686,584	D-2.4
Net railway operating income	60,978,217	27,985,138	117.9
Operating ratio—per cent.	68.16	75.24	
Rate of return on property investment	2.12	0.97	
Eight months ended August 31			
Total operating revenues	\$2,005,952,192	\$2,068,090,684	D-3.0
Total operating expenses	1,466,302,314	1,644,345,288	D-10.8
Taxes	180,778,333	193,696,033	D-6.7
Net railway operating income	277,666,122	148,885,399	86.5
Operating ratio—per cent.	73.10	79.51	
Rate of return on property investment	1.72	0.92	

to \$297,017,776, compared with \$249,388,763 in August, 1932, an increase of 19.1 per cent. Operating expenses totaled \$202,452,506, compared with \$187,646,631 in the same month in 1932, an increase of 7.9 per cent.

Railroads in the Eastern district for the eight months had a net of \$176,060,806, at the rate of 2.23 per cent. For the same period in 1932, their net was \$119,662,464, or 1.52 per cent. Operating revenues in the Eastern district for eight months totaled \$1,031,534,268, a decrease of 3.1 per cent below the corresponding period in 1932, while operating expenses totaled \$724,152,734, a decrease of 10.6 per cent. Class I railroads in the Eastern district for August had a net of \$35,569,201, compared with \$16,703,487 in August, 1932.

Railroads in the Southern district for eight months had a net of \$38,685,322, at

plan of improvement formulated by the district engineer and set forth in detail in the report, and recommends that it be developed into execution as economic conditions may warrant in the future. He further recommends that the project for navigation on the main stem of the river as heretofore authorized from the mouth to Sioux City, Iowa, be vigorously pressed to completion, and that in addition a reservoir at Fort Peck, Montana, be built to the maximum practicable capacity, and be operated primarily for navigation, with such arrangements for future installation as will permit the maximum production of hydro-electric power consistent with the primary demands of navigation. For these purposes he recommends that an expenditure of \$145,000,000 be authorized together with the maintenance that may be necessary.

these are the New York metropolitan district, the Long Island territory, the territory between Philadelphia, Pa., Camden, N. J., Wilmington, Del., Chester, Pa., Baltimore and points on the Delmarva peninsula, and between the Philadelphia-Camden district and the Atlantic City-Ocean City, N. J., district.

Illinois Railroads Protest Tax Assessments

A total of 179 railroads in Illinois have lodged protests with the State Tax Commission against their 1933 assessments, either declaring that they can pay nothing on their taxes or seeking substantial reductions in the assessments. According to the tax commissioners this is the first time in the history of the state that the commission has given representatives of the railroads an opportunity to present such protests. The commission has decided to hear all of the carriers, and at the close of the hearing individual cases are to be considered.

Rock Island Employees to Share Work

In accordance with the suggestion of Joseph B. Eastman, federal co-ordinator of transportation, that the railroads increase employment wherever possible, the Chicago, Rock Island & Pacific is negotiating agreements with employees to spread available work among a larger number of men, by reducing hours and mileage. Already freight and passenger conductors have agreed to restrict their monthly mileage from an average of 6000 miles to a maximum of 5,500 miles for passenger conductors and from an average of 4000 miles a month to a maximum of 3,500 miles for freight conductors. It is estimated that these restrictions, which go into effect on October 1, will provide employment for about 100 brakemen who will be hired to replace those who are promoted to conductors. A study is also being made of the working time of shopmen, maintenance of way employees, signalmen and telegraphers in an effort to ascertain in what ways employment can be increased among these employees.

I. C. C. Declines to Suspend Chicago Switching Rates

The Interstate Commerce Commission on October 4 denied petitions filed by the Illinois Commerce Commission, the Public Service Commission of Indiana, the Acme Steel Company, the Board of Trade of Chicago, Ill., and others, requesting suspension of proposed increased and reduced rates for intrastate switching services in Indiana and Illinois, within the Chicago switching district, and between Chicago Heights, Ill., on the one hand, and the Chicago district on the other, filed in pursuance of the orders of the Commission in the Chicago switching rate case, filed to become effective October 20, 1933.

Civil Aircraft Carry 669,725 Passengers in First Half of 1933

Civil aircraft of the United States carried 669,725 passengers during the six months ended June 30, Eugene L. Vidal, director of aeronautics, Department of Commerce, has announced. The number of

miles flown by all civil aircraft including both passenger and non-passenger flights was 58,610,605. The passengers included 235,139 who rode on the scheduled airlines, and 434,586 who were carried by miscellaneous operators. Of the latter, 294,799 paid for air transportation and 139,787 were not flown commercially. In the first half of 1932 the passengers carried in civil aeronautics totaled 749,507, and the miles flown were 58,391,099.

Federal Barge Service To Be Extended To Missouri River

The Acting Secretary of War, Harry H. Woodring, has approved a recommendation of Major General Lytle Brown, chief of engineers, that the Inland Waterways Corporation begin preparations at once to put its boats in service on the Missouri river next Spring and to make a survey of traffic, tariff arrangements, and terminal facilities of this waterway as required by law. In accordance with the provisions of the Inland Waterways Corporation act of 1924 the chief of engineers has certified that a sufficient and dependable channel of project dimensions, 6 ft. deep and 400 ft. wide, extending from the mouth of the Missouri to Kansas City, Mo., and Kansas City, Kan., will have been completed by March 1, 1934, and with reasonable maintenance will be available on the average for 95 per cent of the time

and at all times when the extreme low water discharge of the river is reinforced by proper storage.

The federal administrator of public works has announced the appointment of a Red River Committee and an Arkansas Basin Committee to examine all proposals which have been submitted for the further development of those rivers, in relation to flood control, power, navigation, reforestation, and soil erosion, and to report their findings to the Mississippi Drainage Area Board.

Net Deficit For Seven Months Reduced To \$73,157,325

Class I Railways in July earned a net income of \$29,527,919, after interest and other fixed charges, as compared with a deficit of \$30,808,001 in July, 1932, according to the Interstate Commerce Commission's monthly compilation of selected income and balance-sheet items. For the seven months period the net deficit had been reduced to \$73,157,325, or less than half of that for the corresponding period of last year, which was \$156,122,097. Total current liabilities at the end of seven months, however, amounted to \$1,109,040,546, while the current assets amounted to only \$965,196,327. For the corresponding period of last year the assets slightly exceeded the liabilities. The commission's compilation follows:

SELECTED INCOME AND BALANCE-SHEET ITEMS OF CLASS I STEAM RAILWAYS

Compiled from 145 reports (Form IBS) representing 150 steam railways
TOTALS FOR THE UNITED STATES (ALL REGIONS) †

For the month of July 1933	Income Items	For the seven months of 1933	1932
\$64,307,074	\$11,287,402	1. Net railway operating income.....	\$216,737,483 \$120,900,234
16,513,111	15,086,820	2. Other income	104,309,835 119,871,145
80,820,185	26,374,222	3. Total income	321,047,318 240,771,379
11,380,223	10,817,286	4. Rent for leased roads.....	76,528,105 74,697,413
44,305,587	44,181,142	5. Interest deductions	310,480,032 307,645,678
d 4,393,544	2,183,795	6. Other deductions	7,196,506 14,550,385
51,292,266	57,182,223	7. Total deductions	394,204,643 396,893,476
29,527,919	d 30,808,001	8. Net income	d 73,157,325 d 156,122,097
		9. Dividend declarations (from income and surplus):	
20,000	639,969	9-01. On common stock.....	27,859,478 41,541,251
509,835	570,735	9-02. On preferred stock.....	7,263,814 10,233,542

BALANCE-SHEET ITEMS

Selected Asset Items

Balance at end of July
1933 1932

10. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707).....	\$744,744,843	\$762,692,355
11. Cash	278,369,820	246,516,029
12. Demand loans and deposits	41,708,208	34,489,367
13. Time drafts and deposits	41,910,582	25,054,274
14. Special deposits	21,390,109	27,597,887
15. Loans and bills receivable	10,543,609	19,385,880
16. Traffic and car-service balances receivable	53,491,311	44,034,915
17. Net balance receivable from agents and conductors	47,385,918	36,702,582
18. Miscellaneous accounts receivable	134,639,854	145,843,474
19. Materials and supplies	291,900,763	340,557,302
20. Interest and dividends receivable	35,368,272	31,339,976
21. Rents receivable	2,042,204	2,010,368
22. Other current assets	6,445,677	7,074,690
23. Total current assets (Items 11 to 22).....	965,196,327	960,606,744

Selected Liability Items

Balance at end of July
1933 1932

24. Funded debt maturing within six months*.....	101,010,702	93,326,908
25. Loans and bills payable	338,790,657	270,754,834
26. Traffic and car-service balances payable	72,979,342	62,146,892
27. Audited accounts and wages payable	198,825,984	211,134,390
28. Miscellaneous accounts payable	55,496,590	55,554,398
29. Interest matured unpaid	188,743,551	146,473,539
30. Dividends matured unpaid	7,782,651	9,566,499
31. Funded debt matured unpaid	98,249,746	50,405,818
32. Unmatured dividends declared	967,617	1,218,323
33. Unmatured interest accrued	108,511,766	106,424,496
34. Unmatured rents accrued	23,291,845	23,875,202
35. Other current liabilities	15,400,797	15,601,737
36. Total current liabilities (Items 25 to 35).....	1,109,040,546	953,156,127

* Excludes returns for Class I Switching and Terminal Companies. Data for this class of roads were included in all published statements prior to January, 1933.

• Includes payments which will become due on account of principal of long-term debt (other than that in Account 764, Funded debt matured unpaid) within six months after close of month of report.

† Includes obligations which mature less than two years after date of issue.

d Deficit.

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Planning for tomorrow's greater profit should govern

the railroad's expenditures today. • Do not let the

old locomotives waste the increasing gross. Buy new

Super-Power and keep efficiency up to its present
standard.



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Lockwood Will Address Western Railway Club

The Western Railway Club will hold its initial Fall meeting on Monday evening, October 16, at the Hotel Sherman, Chicago, the speaker of the evening being R. L. Lockwood, Director, Section of Purchases, Federal Co-ordinator of Transportation. Mr. Lockwood will discuss the subject "Railroad Purchases and Standardization". As this subject is one of unusual interest and importance, particularly at the present time, it is anticipated that a large number of railway officers and supply-company representatives will be present to hear the address and take part in the subsequent discussion. The usual "Dutch-treat" dinner will be served at 6:30 p.m., preceding the meeting.

Freight Commodity Statistics For 1932

Revenue tons of freight originated by the Class I railways in 1932 amounted to 646,222,818, according to the Interstate Commerce Commission's annual computation. This was less than half the tonnage for the peak year 1929, when it was 1,339,091,007. Similarly the tons carried, 1,168,288,594, were less than half of the figure for the peak year 1926, which was 2,465,368,606. The decrease in tonnage originated for the year 1932 as compared with 1931 was 27.73 per cent. Products of agriculture decreased 17 per cent, animals and products 16.54 per cent, products of mines 27.83 per cent, products of forests 39.32 per cent, manufacturers and miscellaneous 30.71 per cent, and l. c. l. freight 33.11 per cent.

Club Meetings

The Canadian Railway Club will hold its next meeting on Monday evening, October 16, at the Windsor Hotel, Montreal. Hon. Wesley Frost, consul-general of the United States in Canada, will present a paper on crime in the United States.

The Car Foremen's Association of Omaha will hold its next meeting on Thursday, October 12, at 1:15 p.m., in the C. B. & Q. station, Omaha, Neb. The discussion will be on inter-changing of cars in the Terminal; paper by N. A. Johnson, C. St. P. M. & O.

The Pacific Railway Club will hold its next meeting in Sacramento, Cal., on Friday evening, October 13. V. Villette, of the Westinghouse Air Brake Company, will present a paper, illustrated by moving pictures, on the new AB Air Brake.

Two-Cent Rate Increases Travel on Great Northern

The number of local passengers carried by Great Northern trains during August and September increased by more than 50 per cent, as compared with the same months of 1931, following the introduction of the rate of two cents a mile in coaches and tourist sleeping cars on August 1, according to an announcement by E. H. Wilde, general passenger agent. Comparison of the figures for August and September with the same months last year is made even more favorable by the fact that during almost every previous month this year local travel showed a decline as compared with the corresponding months last year.

The lower passenger rate has been publicized widely by advertisements in newspapers throughout Great Northern territory.

Safety Section Meets at Chicago

A reasonable accident rate which will serve as a basis for measuring the efficiency of various departments, the increasing number of accidents to trespassers and the necessity of uniformity in reporting accidents were among the subjects considered at the thirteenth annual meeting of the Safety Section of the American Railway Association at Chicago on October 3-5. Among the speakers on the program were F. E. Williamson, president of the New York Central Lines; M. J. Gormley, president of the American Railway Association; Dr. M. O. Lorenz, director of the Bureau of Statistics of the Interstate Commerce Commission; Lew R. Palmer, conservation engineer of the Equitable Life Assurance Society; and C. B. Boulet, director of safety of the Wisconsin Public Service Corporation.

N. Y. Waterways Association Opposes St. Lawrence Treaty

The State Waterways Association of New York, at a meeting in Albany on October 3, adopted a resolution calling upon Governor Herbert H. Lehman of New York to put that State on record as opposed to the ratification by Congress of the St. Lawrence seaway treaty. The association appointed a committee to urge this action upon the governor. One member of this committee, Congressman James M. Mead, of Buffalo, N. Y., in an address at the meeting, held that the State should work for federal improvement of the Western end of the New York State Barge Canal and urged that a new and complete survey be made of the proposed St. Lawrence development by federal government engineers.

Eastman Inquires as to Subsidies in Air Transportation

Co-ordinator Eastman on October 2 sent out a questionnaire to municipalities, states, and other public bodies which own or operate airports and landing fields, for the purpose of developing information as to the financial results of their operation. The inquiry was prepared by his Section of Research as part of a general survey of the economic condition and relations of all forms of transportation, and of "a special study of the subsidies which various of the agencies of transportation are said to enjoy." The report will deal with airports only in large groups, it not being the intention to deal with any individual local situation. The information called for includes statements as to the relative use of facilities by various classes of users, investment in airports, methods of financing, annual expenses, rates charged, annual revenue, deficits, and taxes.

N. Y. Inland Station Completes First Year of Operation

More than 84 million lbs. of parcel freight were handled through New York's first union off-track freight station during the first 12 months of its operation accord-

ing to a statement issued on October 4, by the Port of New York Authority. The station occupies the basement and street floor of the Port Authority Commerce Building, 111 Eighth avenue, New York.

"The continued progressive increase of the use of the station," says the Port Authority statement, "was regarded as the most significant feature of the first year, with the steady upward trend of recent months particularly gratifying. The September, 1933, tonnage more than tripled that of October, 1932."

The statement continues to point out that, as the upper floors of the building are becoming occupied, tenant shipments are increasing. It adds that "One tenant is known to have cancelled his nightly over-the-road truck delivery from points in Massachusetts and Delaware and has resumed over-night service via the railroads and the union terminal."

D. L. & W. Selling All-Expense New York Tours

The Delaware, Lackawanna & Western has entered an arrangement with the American Travel Institute, whereby Lackawanna ticket agents are selling the Institute's budgeted tours of New York in conjunction with rail tickets for transportation over the Lackawanna into that city.

The tours of the American Travel Institute, which are sold in conjunction with any form of rail ticket, are designed to afford patrons a sight-seeing trip about New York City with all expenses and details arranged in advance. They are of one to five days' duration, but a group of three-day tours, ranging in price from \$10 to \$50, in addition to the fare to New York is being particularly exploited. The variation in price is based upon the selection of hotels and the cost of other attractions provided. In all cases, however, it is pointed out that there is a substantial saving over the cost to an individual of seeing New York in the same manner. Passengers are not escorted about New York in groups, but each is permitted to take his own time in following the schedule of his tour.

Shippers' Board Meetings

The Great Lakes Shippers' Regional Advisory Board held its regular meeting at Detroit on September 27, with an attendance of about 300. Committee reports indicated an expectation of an increase of 36.5 per cent in car loadings, as compared with last year, an outstanding item in the reports being a prediction of an increase of 563 per cent in the movement of ore and concentrates. At the noonday luncheon, the members and guests were entertained by M. W. Bingay, managing editor of the Detroit Free Press, who gave a talk on "Our Changing Times."

The Atlantic States Shippers' Advisory Board held its regular meeting in Philadelphia on October 5, with an attendance of about 500. The committee reports predict increases in all of the principal commodities except fresh fruits, potatoes and other vegetables, and cement. The average of the expected increases is 10½ per cent above the fourth quarter of last year, this including, however, a number of large increases; iron and steel 50 per cent; ma-



DESIGN FOR LOWER MAINTENANCE

With the Help of the BOOSTER

Because The Locomotive Booster is only used for a short period of the total running time, it saves substantially in locomotive maintenance.

The locomotive must be designed to supply the maximum power required to fulfill certain operating demands.

By incorporating The Locomotive Booster in the fundamental design of the locomotive, it is possible to obtain this desired maximum with smaller cylinders than would otherwise be the case.

The smaller cylinders mean lower locomotive maintenance since maintenance is approximately proportional to the power output.

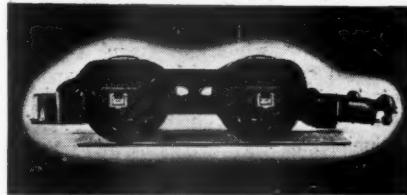
Without The Locomotive Booster, larger cylinders must be used to se-

cure the maximum power demand and then these larger cylinders must continue in service even when the power demand drops off at road speed.

With The Locomotive Booster in-operative at road speed the smaller cylinders are ample to perform the required work.

Maintenance is therefore lower and, at the same time, 25,000 to 40,000 lbs. are saved in locomotive weight.

Design The Locomotive Booster as an integral part of your new power.



THE LOCOMOTIVE BOOSTER



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

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chinery and boilers, 36; lime and plaster, 45; brick and clay products, 31; ore and concentrates, 20; sugar etc., 20; paper etc., 22; and fertilizers, 20 per cent.

At the midday luncheon the members listened to an address on the "relation of Industry, Railroads and the New Deal," by C. L. Bardo, president of the New York Ship Building Company.

New Jersey Railroads Urge New Tax Basis

Railroads operating in New Jersey are endeavoring through a presentation now being made before the State Board of Tax Appeals, to bring about a revision of the basis upon which taxes are assessed on their properties in that State. Participants in the proceedings are the Delaware, Lackawanna & Western, the Erie, the Lehigh Valley, the Central of New Jersey and the New York Central.

The case is, in effect, a protest by the railroads against the use by New Jersey taxing authorities of a cost of reproduction basis for the purpose of assessing taxes. The protestants are contending for a tax assessment value arrived at through the use of a formula, the elements of which would include the system value of stocks and bonds allocated to New Jersey properties and the capitalized value of net earnings allocated to operations in New Jersey. Representatives of the carriers have worked out a formula for these allocations and are urging its adoption by the Board.

The present case is the outgrowth of a petition for relief from New Jersey taxation brought in 1931 by the Central of New Jersey and the Lehigh Valley. This Lehigh Valley-Jersey Central case finally reached the United States Circuit Court of Appeals which latter, as reported in the *Railway Age* June 24, overruled a decision of the United States District Court and upheld the railroads' right to seek relief in the federal courts on the ground that the State courts had disclaimed power to grant relief.

Canadian Lines Increase Net in August

Gross revenues of the Canadian National in August showed an increase of \$928,178 when compared with August, 1932. Gross for August totaled \$13,376,756 as against \$12,447,578 last year. Operating expenses were \$12,369,725, a reduction of \$544,044, leaving a net operating revenue of \$1,007,031 as against a net revenue deficit of \$466,191 in August, 1932, a net gain of \$1,473,222.

Aggregate revenues from January 1 to August 31 of this year were \$94,134,223, a decrease of \$11,275,712, as compared with last year. Operating expenses during the period were \$95,285,708, a reduction of \$9,761,342.

After payment of operating expenses there was a deficit for the eight months' period of \$1,151,485, as against net revenue of \$362,885 for the similar period of last year.

The Canadian Pacific had net operating revenue in August of \$738,601, an increase of \$41,395 over the \$697,206 reported for August of last year. Gross showed a re-

duction for the month of \$222,956 to a total \$9,943,272, but this was more than offset by a reduction of \$264,352 in operating expenses, the August, 1933, total being \$9,204,670 compared with \$9,469,022 a year ago.

For the first eight months of the year, gross at \$70,809,194 show a reduction of \$7,071,677 from the \$77,880,871 reported for that period a year ago. Operating expenses of \$63,841,072 showed a reduction of \$7,231,006 from the \$71,072,078 reported a year ago, this resulting in an increase in net by \$159,328 from \$6,808,793 to \$6,968,122.

Railway Fire Protection Association at Chicago, October 17

The annual meeting of the Railway Fire Protection Association will be held at the Hotel Stevens, Chicago, Ill., October 17 and 18, according to a recent announcement of R. R. Hackett, Baltimore, Md., secretary.

On Tuesday, the first day, the forenoon session will include the report of the executive committee, and a paper on

Glaring Example of Injustice

It is doubtless not reasonable to expect that at this stage in the struggle to pull the United States out of its immediate troubles, the rail-waterway transportation situation can claim special attention. There is a time for everything and, as the President has said, "first things" must come first. But if the "New Deal" is to be complete, it must sooner or later tackle this particular problem, for it is a glaring example of injustice in its present state. If there be any "competition" in the United States more "unfair" in theory and in practice than that of the artificial waterway built and maintained by public taxes with the railroad built and maintained by private capital, this writer would be glad to be informed where and what it is. Yet, up to the present time there is not of record any evidence whatever to indicate that the official "conscience"—whether legislative, executive or regulatory—has been in the least degree incommode by the scandalous inequity of the whole affair!

Most significant, perhaps, everything considered, is the studied reticence in this matter of the Interstate Commerce Commission, which has found it necessary to comment so frequently and so freely upon so many other departures (of private individuals) from strict principles of right. Yet in this matter, with abundant evidence in its records, it has contented itself with the most formal and limited references, in general terms.

Once more, this writer is compelled to ask, when are we to have a transportation "code," which will put an end to what is in practice little short of piracy upon private citizens, conducted directly by the Government of the United States with the people's money?

From an Article by Thomas F. Woodlock in the Wall Street Journal.

Timber Treating Plants, by E. M. Strauss; in the afternoon, a paper on Locomotive Fire Hazards, by W. A. Radspinner. The remainder of the program consists of committee reports, as listed below, the name in each case being that of the chairman of the committee.

Tuesday afternoon—Snow Melting Oil and Handling of Gasoline, W. F. Steffens; Gasoline and Electric Motor Trucks in Freight Depots, E. J. Reilly; Stations, Freight Depots and Warehouses, T. E. Chapman, Jr.; Merchandise in Transit, W. S. Topping; Freight Car Heaters and Refrigerator Cars, P. A. Bissell; Housing of Employees, P. A. Bissell; Classification and Storage Yards, P. A. Bissell; Incinerators, P. A. Bissell.

Wednesday morning—Hand Book, T. E. Chapman, Jr.; Natural Gas and Gasoline Pipe Lines, W. F. Steffens; Shop Plants, J. R. Peters; Coalings Stations, W. E. Cathcart; Bridges and Trestles, deWitt Rapalje; Fire Alarm Signaling Systems, deWitt Rapalje; Pyroxylin Lacquers and Finishes, deWitt Rapalje; Hazards Surrounding Transportation of Cotton, E. Williamson; Air Compressors, C. A. Thomson; Fuel Oil, E. L. Tallichet; Storage of Records, J. L. Rice.

Wednesday afternoon—Reports of special committees in co-operation with other organizations; election of officers.

Traffic to Chicago Near Record for Legion Convention

With the American Legion convention and the World's Fair attracting thousands of visitors to Chicago during the weekend of September 30-October 2, the volume of railroad passenger traffic into the city reached a total that has been exceeded in recent years only by the record established during this year's Labor Day holiday. From figures submitted by the railroads it is estimated that the number of passengers carried into the city during this period was only slightly under the 100,000 mark, this movement necessitating the operation of much additional equipment and more than 200 extra sections and special trains.

The largest movement was on the New York Central Lines, which brought in nearly 30,000 holiday visitors. On Sunday 15,000 passengers rode these lines into the city, 39 extra sections being operated on that day.

On Saturday, Sunday and Monday, the movement of passengers on the Pennsylvania to and from the city totaled 25,000 persons, this traffic requiring the operation of a total of 52 extra sections on Saturday and Sunday and 10 on Monday. During the same period the Chicago, Milwaukee, St. Paul & Pacific carried 11,000 passengers into Chicago and operated 15 extra sessions. The largest single movement on this road was a special train carrying 525 delegates to the American Legion convention from points in Minnesota.

On the Chicago & North Western the movement into Chicago on Sunday, Monday and Tuesday reached a total of 15,000 persons. The number of extra sections operated totaled 32; 14 on Sunday, 10 on Monday and 8 on Tuesday.

The movement on the Illinois Central

There is more to an ARCH than a pile of BRICK



American Arch Company has never been content simply to furnish good refractories for Locomotive Arches.

Constantly, during its quarter century of service to the country's railroads, it has been improving the art and keeping abreast of changing conditions.

Standardizing to reduce the number of shapes and sizes; redesigning to make replacements easy and to secure greater stability.

As locomotive improvements such as stokers, siphons, and increased grate areas have developed, the Arch has kept pace due to the engineering activity of American Arch Company.

But design is only one of the many factors in a satisfactory Locomotive Arch and every other phase of Arch Brick service is covered as completely by the American Arch Company as is design.

**HARBISON-WALKER
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Refractory Specialists



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was second only in volume to the I. C. record established at Labor Day. Nearly 10,000 passengers were brought in. Three special trains and 10 extra sections of regular trains were operated.

Equally heavy business was reported on the Chicago, Burlington & Quincy and the Atchison, Topeka & Santa Fe, which transported 6,000 and 4,000 passengers, respectively, into the city over the week-end.

Passenger Fare Reduction by Western Roads Expected

Final action by the Western railways on the proposed reduction in basic passenger fares was expected to be taken on Friday, October 6, when the Western Association of Railway Executives was to consider final recommendations of the Special Passenger Fare Committee of Western Executives, who met in Chicago on Tuesday, October 3 to draw up their conclusions. One forecast of the new rates of fare, to replace present basic rate of 3.6 cents a mile, is as follows: 3 cents a mile for first class one way tickets, 2 cents a mile for round trip first class tickets with a 30-day limit, 2½ cents a mile for round trip first class tickets with a longer return limit, and 2 cents a mile for coach tickets either on a one way or a round trip basis. The 50 per cent surcharge placed by the railways upon Pullman tickets was also expected to be eliminated and it is understood that the new rates are proposed for an experimental period of 6 months. According to reports circulated following the meeting of the special committee, the reductions are expected to be put into effect about Dec. 1.

If the anticipated action is taken by the Western lines it will represent their decision to go ahead without waiting for the Eastern and Southern roads to come to a similar conclusion concerning the long disputed question of passenger fare reductions. Joint meetings of the officers of Eastern and Western lines at which the question of nation wide reductions has been discussed, with the Western roads strongly favorable, have failed to bring the matter to a head. It is understood that there is fairly general agreement among all lines that some reductions are necessary, the Western lines favoring the basis expected to be adopted this week, and the Eastern lines divided as between reductions by means of mileage books or a straight rate basis of 3 cents per miles one way and 2 cents per mile round trip on all tickets. The Southern lines are said not to have formulated any definite program as yet. At future meetings of executives of the Eastern, Western and Southern lines, differences now existing are expected to be ironed out, with a possibility that reductions in basic rates by Eastern and Southern lines may be made at the same time as that expected to be fixed by the Western roads.

Establishment of a rate of 2 cents per mile for coach passengers would mean a reduction of approximately 44 per cent in the present basic fares paid by coach passengers. The 3 cent one way first class rate, together with elimination of the surcharge, would mean a reduction of approximately 25 per cent in the rates paid now by one way Pullman passengers, while

a round trip first class rate of 2 cents per mile, plus elimination of the surcharge, would save passengers using these tickets approximately half of the present rate.

Freight Surcharges Expired on September 30

The surcharges on freight traffic, ranging from 6 cents a ton to 2 cents a hundred pounds, applied on all traffic except a list of specified commodities, largely agricultural products, as the result of the Interstate Commerce Commission's decision in Ex Parte No. 103 in lieu of the 15 per cent general increase in freight rates asked by the railroads, expired by limitation on September 30. They were in effect from January 4, 1932, to March 31, 1933, under the original decision, and were then extended for another six-month period.

The commission originally estimated that the surcharges would produce \$100,000,000 to \$125,000,000 additional revenue but, because of the falling off in traffic and delays in applying them in many states they amounted to only about \$75,000,000 up to March 31, during which time they were pooled by the Railroad Credit Corporation and loaned to companies requiring aid to meet interest charges. Figures showing the amount produced since then are not yet available. In many cases, where the railroads had reduced rates by more than the amount of the surcharge to meet truck or water competition, the amount of the surcharge was added to the basic rate when the surcharges expired, and in a few cases the commission suspended the new tariffs because the increases appeared to be greater than the amount of the surcharge and an increase in rates on cigarettes and smoking tobacco between Southwestern points was suspended because the rates apparently were not made to meet truck competition.

The Railroad Credit Corporation, which was set up by the railroads to administer funds derived from the emergency rates and which is now engaged in liquidating its affairs, will make another repayment of 2 per cent to participating carriers on October 16. This repayment will amount to \$1,473,000, of which \$607,000 will be in cash and \$866,000 will be in credits. Including the repayment to be made on October 16, there have been three authorized distributions so far made by the Railroad Credit Corporation amounting to \$5,205,449 or 7 per cent of the fund contributed by the participating carriers.

Strike Threat in Canada

The general conference committee of the Canadian "running trades" (enginemen, trainmen and operators) last week in Montreal notified the Canadian Pacific and Canadian National that they have been authorized by the 24,000 employees they represent to call a strike as a result of the vote taken following the conclusion of negotiations with the companies resisting the imposition of an additional 10 per cent wage reduction. Before the chairman of the unions can take any further action, they must secure authorization from the grand officers of the international unions with which they are affiliated.

An important factor in the outcome will be the support the "running trades" may receive from the other unions which have cases before boards of conciliation at the present time, or pending. The trainmen, enginemen and operators with several months' start of the other unions in their negotiations, have pushed matters ahead rapidly, so that now they are in a position to call a strike while the others are still presenting their cases before boards appointed under the Industrial Disputes Act.

Tenacious in its opinion that the proposed reduction in compensation of clerks, freight handlers, and station employees, as well as all other classes of employees is necessary, the Canadian Pacific last week in Montreal produced a 29-page submission to support its claim before the board of conciliation appointed to hear the wage dispute between the company and the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees at its first meeting in the Windsor Hotel. At the conclusion of the company's evidence, the clerks' organization asked for a stay of two weeks until October 10 to prepare their reply to the company's submission.

The justification for the action of the Canadian railways in proposing to reduce the rate of pay is apparent in the railway statistics for 1932, declared George Hodge, head of the personnel department of the C.P.R. in giving evidence.

"We have to go back to 1916" he continued, "to find railway operating revenues as low as they were in 1932. The cost of living was increasing in 1916, while in 1932 it was decreasing.

"The railways in 1932 had an average of 14,578 less men employed than in 1916, but they actually paid in wages, in the later year, an increase of \$76,812,941. In 1932, the Canadian Pacific's operating revenues decreased \$7,238,744, as compared with 1916, but as compared with this decrease in revenue the company paid in actual wages an increase of \$26,571,591. These comparisons are notwithstanding the fact that railway employees, generally speaking, now work an eight-hour day as compared with a ten-hour day in 1916.

"It will be seen that with the changing conditions and the continual decrease in the cost of living index figures the purchasing power of the 'real wage,' on the basis of earnings per hour at the present time, is higher than it was when, as a result of the proceedings before the board of conciliation and investigation in January, 1932, the existing deduction of ten per cent from compensation was agreed upon—which is quite the reverse of the comparative financial position of the company."

At the conclusion of the company's evidence Frank Hall, vice-president of the clerks' organization said that he did not consider it fair for the company to go back to 1916 for comparison with 1932. In 1916 Canada was engaged in the world war, he said, and the employees, through patriotism, had not pressed for wage increases. In fact several unions that were negotiating with the companies on the wage question had dropped the question when war was declared.



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Eastman on P.R.R.-Long Island Merger Proposal

(Continued from page 506)

exclusively by Long Island passengers this obligation would continue on them. If the present rental paid is excessive, it can be challenged in a rate proceeding before the State Commission, and evidence that it is excessive can be given due weight in fixing the fares.

3. "Elimination or reduction of salaries now borne by the Long Island. From the correspondence now before me I take it that the salaries of officers who serve the Long Island exclusively are not a heavy charge. In the event of consolidation certain officers would continue to serve the Long Island division or section exclusively. So far as salaries of other officers are now prorated between the two railroads, the burden borne by the Long Island can be brought in question in any rate proceeding, if it is deemed to be unreasonable. In the event of consolidation, it would continue to be necessary to determine to what extent salaries of system officers should be allocated to Long Island division operations.

"You also speak of the payment of dividends on Long Island stock and their collection by the Pennsylvania, and suggest that a consolidation 'would cure this and other undesirable elements in the present situation.' This again is a matter of book-keeping. If the dividends now paid constitute an unfair return upon the property used by the Long Island they can be challenged in a rate proceeding. If they are not in excess of a fair return, the obligation would still remain upon the users of service of the Long Island division in the event of a consolidation."

In asking General Atterbury for comments on the petition, Mr. Eastman said that if the two companies concerned were not parts of the same system, it would be clear that he lacked power to require a merger or consolidation, but that as the Pennsylvania is practically the sole stockholder of the Long Island, "the maintenance of the latter as a separate corporation or its union with the parent company would seem to be wholly within the control of the Pennsylvania Railroad Company and a matter of management policy."

General Atterbury, in reply said it may properly be assumed that ultimately this consolidation will take place, the management of his company has not regarded the time as ripe for this action, and has thought, before it is consummated, that further development of the relations between the two companies is desirable. He pointed out that the highest salary paid an officer serving the Long Island exclusively is slightly less than \$12,100 per annum.

As to the law, he said, "we feel, as I infer from your letter, you think, that the subject-matter of this complaint is not within the authority conferred upon the co-ordinator. The same act which, in its Title I, establishes his authority, in Title II deals explicitly with consolidations, and clearly manifests the intention of Congress to continue its prior policy under which this matter is left to the voluntary action

of the carriers subject to the authority of the Interstate Commerce Commission as conferred upon it by the interstate commerce act, and is withheld from governmental compulsion.

Meetings & Conventions

The following list gives names of secretaries, date of next or regular meetings and places of meetings.

- AIR BRAKE ASSOCIATION.**—T. L. Burton, Room 2205, 150 Broadway, New York, N. Y.
- ALLIED RAILWAY SUPPLY ASSOCIATION.**—F. W. Venton, Crane Company, 836 S. Michigan Ave., Chicago, Ill. To meet with Air Brake Association, Car Department Officers' Association, International Railroad Master Blacksmiths' Association, International Railway Fuel Association, International Railway General Foremen's Association, Master Boiler Makers' Association and the Traveling Engineers' Association.
- AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.**—W. R. Curtis, F. T. R. M. & O. R. R., Chicago, Ill. Annual Meeting, October 25, 1933, Baltimore, Md.
- AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.**—E. L. Duncan, 332 S. Michigan Ave., Chicago, Ill.
- AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.**—W. C. Hope, C. R. R. of N. J., 143 Liberty St., New York, N. Y.
- AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.**—F. O. Whiteman, Union Station, St. Louis, Mo.
- AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.**—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill. Next meeting, January 20, 1934.
- AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.**—F. R. Borger, C. I. & L. Ry., 830 Federal St., Chicago, Ill. Annual meeting, October 19-21, 1933, Congress Hotel, Chicago, Ill.
- AMERICAN ELECTRIC RAILWAY ASSOCIATION.**—(See American Transit Association.)
- AMERICAN RAILWAY ASSOCIATION.**—H. J. Forster, 30 Vesey St., New York, N. Y.
- Division I.—Operating.—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Freight Station Section.—R. O. Wells, Freight Agent, Illinois Central Railroad, Chicago, Ill.
- Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y. Annual Meeting, June 12-14, 1934, Hotel Stevens, Chicago, Ill.
- Division II.—Transportation.—G. W. Covert, 59 East Van Buren St., Chicago, Ill.
- Division III.—Traffic.—J. Gottschalk, 143 Liberty St., New York, N. Y.
- Division IV.—Engineering.—E. H. Fritch, 59 East Van Buren St., Chicago, Ill. Annual meeting, March 13-15, 1934, Palmer House, Chicago, Ill. Exhibit by National Railway Appliances Association.
- Construction and Maintenance Section.—E. H. Fritch, 59 East Van Buren St., Chicago, Ill. Annual Meeting, March 13-15, 1934, Palmer House, Chicago, Ill.
- Electrical Section.—E. H. Fritch, 59 East Van Buren St., Chicago, Ill.
- Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y.
- Division V.—Mechanical.—V. R. Hawthorne, 59 East Van Buren St., Chicago, Ill.
- Equipment Painting Section.—V. R. Hawthorne, 59 East Van Buren St., Chicago, Ill.
- Division VI.—Purchases and Stores.—W. J. Farrell, 30 Vesey St., New York, N. Y.
- Division VII.—Freight Claims.—Lewis Pilcher, 59 East Van Buren St., Chicago, Ill.
- Division VIII.—Motor Transport.—George M. Campbell, 30 Vesey St., New York, N. Y.
- Car Service Division.—C. A. Buch, 17th and H. Sts., N. W., Washington, D. C.
- AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.**—C. A. Lichy, C. & N. W. Ry., 319 N. Waller Ave., Chicago, Ill.
- AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.**—J. A. Senter, Ind., Agt., N. C. & St. L. Ry., Nashville, Tenn. Semi-annual meeting, December 7-8, 1933, Sherman Hotel, Chicago, Ill.
- AMERICAN RAILWAY ENGINEERING ASSOCIATION.**—Works in co-operation with the American

Railway Association, Division IV.—E. H. Fritch, 59 East Van Buren St., Chicago, Ill. Annual meeting, March 13-15, 1934, Chicago, Ill. Exhibit by National Railway Appliances Association.

AMERICAN RAILWAY MAGAZINE EDITOR'S ASSOCIATION.—J. L. James, L. & N. Employes' Magazine, Louisville, Ky.

AMERICAN RAILWAY TOOL FOREMEN'S ASSOCIATION.—G. G. Macina, C. M. St. P. & P. R. R., 11402 Calumet Ave., Chicago, Ill. Exhibit by Tool Foremen Suppliers' Association.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—R. E. Schindler, Union Trust Bldg., Washington, D. C.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—Calvin W. Rice, 29 W. 39th St., New York, N. Y. Railroad Division—Marion B. Richardson, Ahrens & Richardson, 30 Church St., New York, N. Y.

AMERICAN TRANSIT ASSOCIATION.—Guy C. Heckler, 292 Madison Ave., New York, N. Y. L. Dawson, 1104 Chandler Building, Washington, D. C. Annual meeting, January 23-25, 1934, Houston, Tex.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—H. D. Morris, District Claim Agent, Northern Pacific Ry., St. Paul, Minn. Annual meeting, 1934, Cleveland, Ohio.

ASSOCIATION OF RAILWAY ELECTRICAL ENGINEERS.—Jos. A. Andreucetti, C. & N. W. Ry., 411, C. & N. W. Station, Chicago, Ill. Exhibit by Railway Electrical Supply Manufacturers' Association.

ASSOCIATION OF RAILWAY EXECUTIVES.—Stanley J. Strong, Transportation Building, Washington, D. C.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—S. A. Baber, High Grade Manufacturing Co., 10418 S. Clair Ave., Cleveland, Ohio. Meets with American Railway Bridge and Building Association.

CANADIAN RAILWAY CLUB.—C. R. Crook, 2276 Wilson Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month, except June, July, and August, Windsor Hotel, Montreal, Que.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—A. S. Sternberg, M. C. B. Belt Ry. of Chicago, 7926 South Morgan Street, Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—G. K. Oliver, 2514 W 55th St., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, Bismarck Hotel, Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF LOS ANGELES.—J. W. Krause, Room 299, 610 So. Main St., Los Angeles, Cal. Club not active at present time.

CAR FOREMEN'S ASSOCIATION OF ST. LOUIS.—J. F. Brady, Main and Barton Sts., St. Louis, Mo. Operation suspended indefinitely.

CENTRAL RAILWAY CLUB OF BUFFALO.—M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

CINCINNATI RAILWAY CLUB.—D. R. Boy, 2920 Utopia Place, Hyde Park, Cincinnati, Ohio. Operation suspended indefinitely.

CLEVELAND RAILWAY CLUB.—F. L. Frericks, 14416 Alder Ave., Cleveland, Ohio. Regular meetings second Monday of each month, except June, July and August, Hotel Cleveland, Cleveland, Ohio.

INTERNATIONAL RAILROAD MASTER BLACKSMITHS' ASSOCIATION.—W. J. Mayer, Michigan Central R. R., Detroit, Mich.

INTERNATIONAL RAILWAY FUEL ASSOCIATION.—T. D. Smith, 1660 Old Colony Building, Chicago, Ill.

INTERNATIONAL RAILWAY GENERAL FOREMEN'S ASSOCIATION.—Wm. Hall, 1061 W. Wabasha St., Winona, Minn.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—James B. Walker, 270 Madison Ave., New York, N. Y. Annual meeting, October 10-13, 1933, Hotel Gibson, Cincinnati, Ohio.

NATIONAL ASSOCIATION OF RAILROAD TIE PRODUCERS.—(See Railway Tie Association).

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—C. W. Kelly, Suite 322, 910 South Michigan Ave., Chicago, Ill. Exhibit at A. R. E. A. convention.

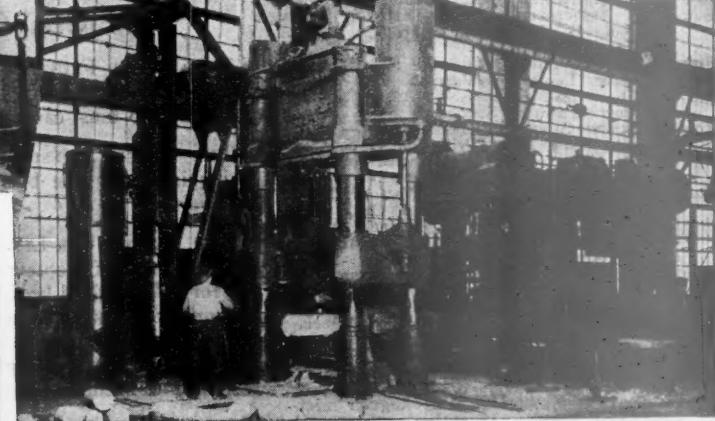
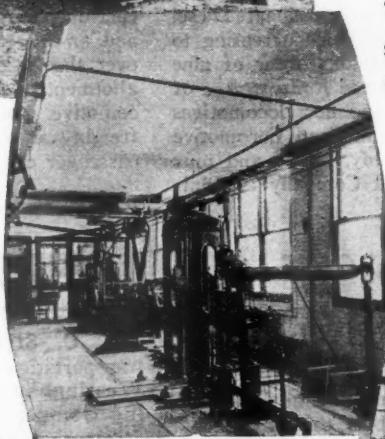
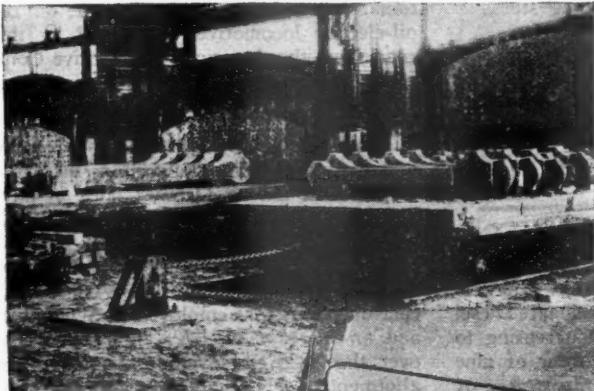
NATIONAL SAFETY COUNCIL.—Steam Railroad Section (See Safety Section, American Railroad Association).

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September. October and November meetings to be held at University Club, 40 Trinity Place, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings third Friday of each month, except June, July and August. 29 W. 39th St., New York, N. Y.

PACIFIC RAILWAY CLUB.—W. S. Wollner, P. O. Box, 3275, San Francisco, Cal. Regular meetings second Thursday of each month, alternately in San Francisco and Oakland.

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RAILWAY ACCOUNTING OFFICERS' ASSOCIATION.—E. R. Woodson, Transportation Building, Washington, D. C. Annual meeting, 1934, White Sulphur Springs, Va.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton (Treas. and Asst. Sec.), First National Bank Building, Chicago, Ill. Annual meeting, November 9, 1933, Hotel Stevens, Chicago, Ill.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 1841 Oliver Building, Pittsburgh, Pa. Regular meetings, fourth Thursday of each month except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRICAL SUPPLY MANUFACTURERS ASSOCIATION.—Edward Wray, 9 S. Clinton St., Chicago, Ill. Meets with Association of Railway Electrical Engineers.

RAILWAY FIRE PROTECTION ASSOCIATION.—R. R. Hackett, Baltimore & Ohio R. R., Baltimore, Md. Annual meeting, October 17-18, 1933, Hotel Stevens, Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 1841 Oliver Bldg., Pittsburgh, Pa. Meets with Mechanical Division Purchases and Stores Division and Motor Transport Division, American Railway Association.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone Section of A. R. A. Division I.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 1252 Syndicate Trust Bldg., St. Louis, Mo.

RAILWAY TREASURY OFFICERS' ASSOCIATION.—L. W. Cox, 1428 Broad Street Station Building, Philadelphia, Pa.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—T. F. Donahoe, Gen. Supvr. Road, Baltimore & Ohio, Pittsburgh, Pa.

ST. LOUIS RAILWAY CLUB.—B. W. Frauenthal, Drawer 24, M. P. O., St. Louis, Mo. Meetings temporarily suspended.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. R. A. Signal Section.

SOCIETY OF OFFICERS, EASTERN ASSOCIATIONS OF RAILROAD VETERANS.—M. W. Jones, Baltimore & Ohio, Mt. Royal Station, Baltimore, Md. Annual meeting, October 7-8, 1933, Scranton, Pa.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—R. G. Parks, A. B. & C. R. R., Atlanta, Ga.

SUPPLY MEN'S ASSOCIATION.—E. H. Hancock, Treasurer, Louisville Varnish Co., Louisville, Ky. Meets with A. R. A. Division V, Equipment Painting Section.

TOOL FOREMEN SUPPLIERS' ASSOCIATION.—E. E. Caswell, Union Twist Drill Co., 11 S. Clinton St., Chicago, Ill. Meets with American Railway Tool Foremen's Association.

TORONTO RAILWAY CLUB.—N. A. Walford, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings first Friday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—L. C. Ryan, Oxbow Railroad Service Co., Carbon & Carbide Building, Chicago, Ill. Meets with Roadmasters and Maintenance of Way Association.

TRAVELING ENGINEERS' ASSOCIATION.—W. O. Thompson, 1177 East 98th St., Cleveland, Ohio.

WESTERN RAILWAY CLUB.—C. L. Emerson, C. M. St. P. & P., Chicago, Ill. Regular meetings third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

Construction

DELAWARE, LACKAWANNA & WESTERN.—A contract has been given to J. S. McCormick, Easton, Pa., for carrying out grade crossing work at Cheektowaga, N. Y.

DELAWARE, LACKAWANNA & WESTERN.—The New York Public Service Commission has approved revised general plans and specification and a revised estimate of cost of \$116,270, for the elimination of the Bridge street crossing of this road in Vestal, Broome county, N. Y. Contracts for work on this project were previously approved by the commission, as reported in the *Railway Age* of September 23.

ERIE.—The New York Public Service Commission has ordered that the present undercrossing carrying the county highway under the tracks of this road in Woodbury, Orange county, N. Y. shall be reconstructed. The railroad was directed to prepare plans, specifications and estimates of cost for the work.

MISSOURI PACIFIC.—This road has been authorized by the United States District Court at St. Louis, Mo., to expend \$2,099,417 for improvements throughout the system during the next six months. The program will include improvements to the track, roadbed, bridges, trestles, station buildings, machinery and rolling stock.

Equipment and Supplies

LOCOMOTIVES

THE DELAWARE, LACKAWANNA & WESTERN has ordered three additional Diesel oil-electric locomotives, thus increasing to 12 locomotives the previous order of nine which was reported in the *Railway Age* of July 7. Eight of these new locomotives will be built by the American Locomotive Company at Schenectady, N. Y., and four by the Ingersoll-Rand Company at Philadelphias, N. J.

FREIGHT CARS

THE UNITED FRUIT COMPANY is inquiring for 20 flat cars, to be of 36-in. gage and about 25 tons' capacity, for export.

THE NORTH AMERICAN CAR COMPANY is inquiring for one beer car of 50 tons' capacity.

THE ARMOUR CAR LINES, reported in the *Railway Age* of September 30 as inquiring for 500 standard beef refrigerator cars, has ordered this equipment from its own shops. An order for 500 steel underframes for these cars has been given to the Pullman Car & Manufacturing Corporation.

THE ALASKA RAILROAD, reported in the *Railway Age* of September 16 as inquiring for 10 ballast-coal cars and 10 dump cars, recently opened bids for this equipment. The Pacific Car & Foundry Company was the low bidder for the ballast-coal cars and the Magor Car Corporation for the dump cars.

THE UNITED STATES NAVY DEPARTMENT.—Bureau of Supplies and Accounts, Washington, D. C., opened bids on October 3 for 37 cars for service in the various Navy Yards. The low bidders were as follows: Haffner-Thrall Car Company, Chicago, nine or eleven 50-ton steel floor flat cars; six or seven 50-ton box cars; six or seven 50-ton flat cars with wood floors; four 50-ton gondola cars and two 50-ton hopper cars. American Car & Foundry Company was low bidder for four 30-ton, 36-in. gage flat cars and the General American Car Company for two 70-ton flat cars. Inquiry for this equipment was re-

ported in the *Railway Age* of September 16.

IRON AND STEEL

COMPETITIVE BIDS ASKED FOR RAIL FOR 47 ROADS.—See article in this issue on page 504 and the list of committments on page 505.

MISCELLANEOUS

DELAWARE, LACKAWANNA & WESTERN.—The Electric Storage Battery Company, Philadelphia, Pa., will furnish two additional battery equipments for use on the oil-electric locomotives purchased by this road from the American Locomotive Company. The order for these locomotives is reported elsewhere in this issue.

THE NEW YORK CENTRAL has prepared a tentative program outlining increased employment during October both in days and in number of men in its shops. This program, which is dependent on business conditions, calls for the employment of 9,550 men, an increase of 1,337 or 16 per cent over the 8,213 employed in September, and an increase of 1,725 or 21 per cent over the 7,825 employed in August. The allotment of labor will be as follows: Locomotive shops, 165 days, 6,199 men; freight car shops, 128 days, 2,125 men; passenger car shops, 84 days, 1,226 men.

Supply Trade

A. C. Streamer has been appointed transportation sales manager for the Westinghouse Electric & Manufacturing Company, with headquarters at East Pittsburgh, Pa., instead of at Chicago as was incorrectly reported in the *Railway Age* of September 23. Mr. Streamer in his new capacity will have charge of the company's activities in the marine, aviation

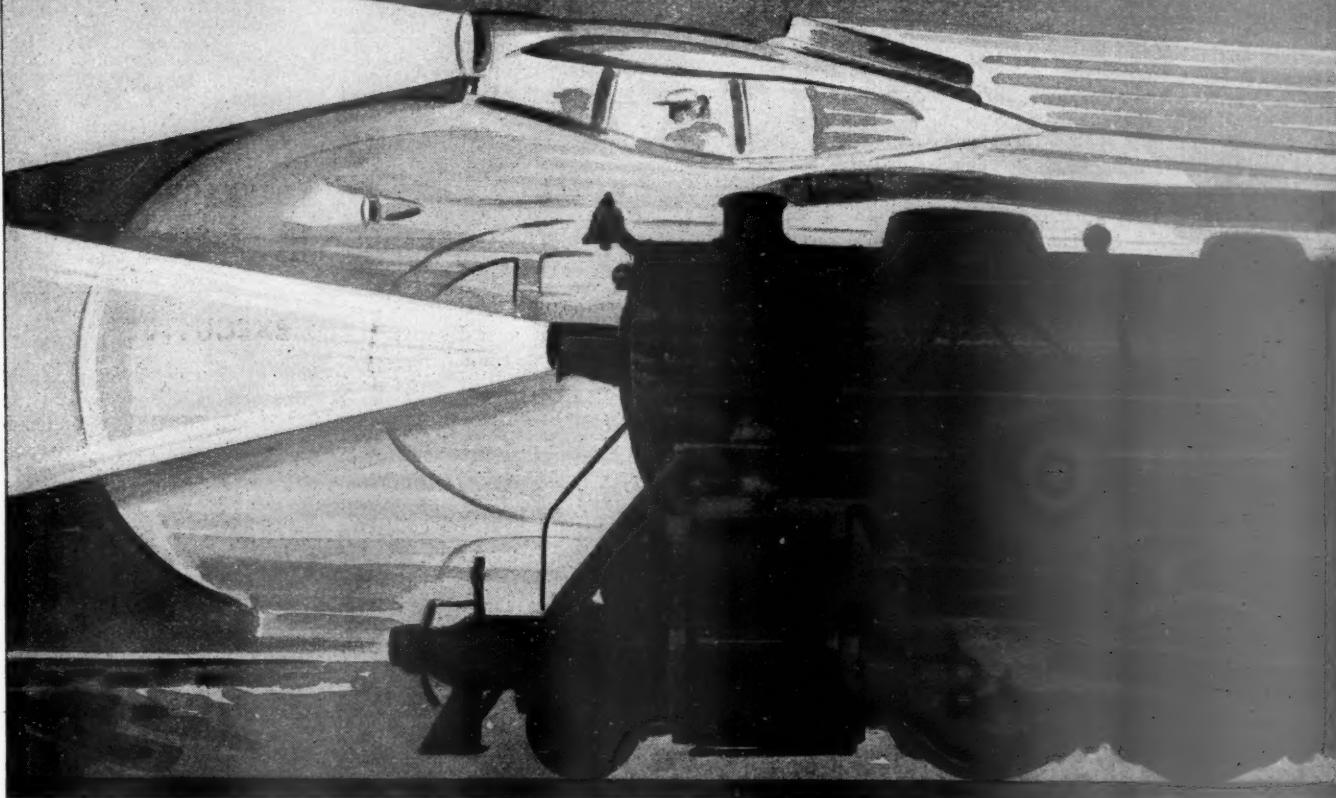


A. C. Streamer

and steam and electric railways industries in addition to air conditioning, gearing and insulation products. He was born at Boulder, Colo., where he received his early education and in 1907 was graduated from the Colorado State University with the

SPEED!

NEEDS NEW MATERIALS



Speed is the keynote of future railway transportation. Special units running at 100 miles per hour are already being built. » » » But every mile an hour increase in speed means an increase in stress. The safe generation and transmission of higher power requires better, stronger materials. The day when iron was iron and steel was steel has given way to the day of special alloy steels with characteristics precisely suited to the work in hand. Steels developed by Republic metallurgists for each particular job. » » » Strong nickel steel boiler sheets and firebox sheets to withstand high pressures; Agathon alloy forging steel that is unaffected by low temperatures; Corrosion resisting sheets and boiler tubes of Toncan Iron; Staybolts of alloy steels that are stronger and tougher than the old materials; Stainless steels for the new high speed trains. » » » These are just a few of the many special steels offered by Republic to meet the new conditions of modern railroading.

CENTRAL ALLOY DIVISION, MASSILLON, OHIO



REPUBLIC STEEL
CORPORATION
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Toncan Iron Boiler Tubes, Pipe, Plates, Culverts, Rivets, Staybolts, Tender Plates and Firebox Sheets • Sheets and Strip for special railroad purposes • Agathon Alloy Steels for Locomotive Parts • Agathon Engine Bolt Steel • Agathon Iron for pins and bushings • Agathon Staybolt Iron • Climax Steel Staybolts • Upson Bolts and Nuts • Track Material, Maney Guard Rail Assemblies • Enduro Stainless Steel for dining car equipment, for refrigeration cars and for firebox sheets • Agathon Nickel Forging Steel.

The Birdsboro Steel Foundry & Machine Company of Birdsboro, Pa. has manufactured and is prepared to supply under license, Toncan Copper Molybdenum Iron castings for locomotives.



degree of bachelor of science in electrical engineering. Upon graduation, he joined the Westinghouse organization serving in engineering and sales departments. In 1926, he was appointed assistant director of sales and since 1931 served as sales manager of the diversified products department.

More than 170 laboratories and testing organizations are co-operating in the development of a code of fair competition for submission to the N. R. A. on behalf of commercial testing laboratories. A meeting is to be held in New York on October 13, to which all concerned in such a code are invited.

Code Filed for Railway Car Industry

The Railway Car Industry on September 30 filed with the National Recovery Administration its proposed code of fair competition. It provides a minimum wage of 40 cents an hour, unless the July 15, 1929, rate was lower in which event the later rate applies. It also provides for a 40-hour week averaged over any six months period with a maximum of 48 hours or six days in any one week. It is proposed that no employer subscribing to the code shall manufacture or build and sell any products of the industry at a price which shall be less than the employer's estimated cost thereof, plus five per cent. Included under the code are all the important car builders of the country.

OBITUARY

Charles Piez, chairman of the board of the Link Belt Company, Chicago, died on October 2 at the Garfield Hospital, Washington, D. C., at the age of 67.

Financial

CHESAPEAKE & OHIO.—Abandonment.—The Interstate Commerce Commission has authorized this company to abandon a segment of line extending from Dillwyn to Rosney, Va., 4.4 miles.

COLORADO & SOUTHERN.—Abandonment.—The Interstate Commerce Commission has authorized this company to abandon a narrow gage branch line extending from Sheridan Junction, Colo., to Morrison, 9.8 miles.

EAST CAROLINA.—Abandonment.—The Interstate Commerce Commission has authorized this company and Henry Clark Bridgers, lessee, to abandon that part of its line extending from a point near Farmville, N. C., to Hookerton, 11 miles.

GULF, MOBILE & NORTHERN.—R. F. C. Loan Application Withdrawn.—This company has withdrawn its application to the Reconstruction Finance Corporation for a loan of \$500,000.

MERIDIAN & BIGBEE RIVER.—R.F.C. Loan.—Division 4 of the Interstate Commerce Commission has approved a loan of \$744,252 to the trustee of this property, from the Reconstruction Finance Corporation, in place of a loan of \$600,000 pre-

viously approved, for the construction of an extension from Cromwell, Ala., to Myrtlewood, on condition, among other things that the trustee furnish bond or other assurance to the corporation that the construction will be completed and the existing line be reconditioned.

MISSOURI PACIFIC.—Final Valuation As of 1918.—The Interstate Commerce Commission has issued a final valuation report finding the final value for rate-making purposes of the properties used for common-carrier purposes by the various carriers embracing the Missouri Pacific system to be \$264,044,997 as of 1918, including \$8,608,737 for working capital. The company had contended that the value of its property not only equaled its recorded investment in road and equipment, \$351,088,465, but equaled or exceeded the par value of its outstanding securities, \$381,299,220. The report says that the investment figure would be reduced to \$337,922,704 if readjustments were made as suggested in the tentative report. The cost of reproduction less depreciation of property other than land and materials and supplies was placed at \$199,160,018. The present value of lands and rights owned and used on valuation date was placed at \$29,722,252.

NEW YORK CENTRAL.—Abandonment.—The Interstate Commerce Commission has authorized this company to abandon a portion of a branch line extending from Westfield, Pa., to the end of the line at Ulysses, 14.6 miles.

PULLMAN COMPANY.—Valuation Argument.—Division 1 of the Interstate Commerce Commission will hear oral argument on October 27 on the tentative valuation report covering this company's property.

SPOKANE INTERNATIONAL.—Trustee appointed.—E. S. McPherson, vice-president and traffic manager of the Spokane International, has been appointed trustee of the company which recently filed a voluntary petition in bankruptcy.

WESTERN PACIFIC.—New Directors.—Alexander Berger and Willis D. Wood have been elected directors of this company succeeding Arthur M. Anderson and Frederick H. Ecker. Mr. Anderson is a partner in the banking firm of J. P. Morgan & Co. and Mr. Ecker is president of the Metropolitan Life Insurance Company. Mr. Wood is a partner in the stock exchange firm of Wood, Low & Co., and is also a director of the Missouri-Kansas-Texas.

WISCONSIN CENTRAL.—R. F. C. Loan Application Withdrawn.—The receiver has withdrawn the application to the Reconstruction Finance Corporation for a loan of \$750,000.

Average Prices of Stocks and of Bonds

	Oct. 3	Last week	Last year
Average price of 20 representative railway stocks..	38.35	41.21	28.67
Average price of 20 representative railway bonds..	67.16	68.27	64.73

Valuation Reports

The Interstate Commerce Commission has issued final valuation reports finding

the final value for rate-making purposes of the property owned and used for common-carrier purposes, as of the respective valuation dates, as follows:

Preston	\$ 155,000	1927
New York and Pennsylvania	775,000	1927
Mississippi and Alabama	13,500	1928
Apache	1,300,000	1927
Graysonia, Nashville and Ashdown	435,000	1927
Missouri Pacific	264,044,997	1918
Jacksonville & Havana	900,000	1927

Dividends Declared

Cincinnati, Sandusky & Cleveland.—6 Per Cent Preferred, \$1.50, semi-annually, payable November 1 to holders of record October 24. Lehigh & Hudson.—\$1.00, quarterly, payable September 30 to holders of record September 21. Reading—Common, \$.25, quarterly, payable November 9 to holders of record October 11. Sharon.—\$1.25, semi-annually, payable October 2 to holders of record September 23. Vermont & Massachusetts.—\$3.00, semi-annually, payable October 7 to holders of record September 12.

Railway Officers

EXECUTIVE

The position of executive vice-president of the Missouri-Kansas-Texas, which has been held by **H. E. McGee**, with headquarters at Houston, Tex., has been abolished.

OPERATING

C. J. Abbott has been appointed assistant to the general manager of the Chicago, Burlington & Quincy, with headquarters at Alliance, Neb.

S. L. Fee, assistant superintendent of the Wymore division of the Chicago, Burlington & Quincy, with headquarters at Wymore, Neb., has been appointed acting superintendent of the Aurora and La Crosse divisions, at Aurora, Ill., to replace **H. D. Brown**, who is on a leave of absence because of ill health. **E. C. Hale**, trainmaster at Aurora, has been appointed acting assistant superintendent at Wymore to succeed Mr. Fee.

TRAFFIC

Charles H. Dexter, general agent for the Union Pacific at Portland, Ore., retired on October 1, having reached the retirement age of 70 years.

Gus Wehnert, chief of the tariff bureau of the Chicago & Illinois Midland, has been promoted to general freight agent with headquarters at Springfield, Ill., succeeding **C. A. Hunt**, who has resigned. **Fred W. Paris**, has been appointed assistant general freight agent with headquarters also at Springfield. **C. G. Cruickshank** has been appointed chief of the tariff bureau, succeeding Mr. Wehnert.

OBITUARY

E. P. Willey, auditor of expenditures of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, died suddenly on September 26, at Norfolk, Va.